UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2025

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

001-42252

(Commission File Number)

TERRESTRIAL ENERGY INC.

(Exact name of registrant as specified in its charter)

Delaware	**98-1785406**	**(646) 687-8212**
(Jurisdiction of Incorporation)	(I.R.S. Employer Identification No.)	(Registrant's telephone number)

2730 W. Tyvola Road, Suite 100
Charlotte, NC 28217

(Address and postal code of principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	IMSR	The Nasdaq Stock Market LLC
Redeemable Warrants, each whole warrant exercisable for one Common Stock at a price of $11.50 per share	IMSRW	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☒ Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the common shares of Terrestrial Energy Inc. (formerly known as HCM II Acquisition Corp.) held by non-affiliates was $191,475,000 as of June 30, 2025, the last business day of the registrant's most recently completed second fiscal quarter.

The number of common shares outstanding as of March 25, 2026 was 105,935,266.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement to be filed within 120 days after the end of the fiscal year ended December 31, 2025 in connection with the registrant's 2026 annual general meeting of shareholders are incorporated by reference into Part III of this Form 10-K.

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ITEM 1. BUSINESS

References in this section to "we," "our," "us," the "Company" or "Terrestrial Energy" generally refer to Terrestrial Energy Inc. and its subsidiaries.

Mission

Terrestrial Energy Inc. is an advanced nuclear technology company developing the Integral Molten Salt Reactor nuclear plant ("IMSR Plant"), which uses the Company's proprietary design of Molten Salt Reactor ("MSR"). Our mission is to transform global energy markets by commercializing our IMSR Plant, which will deliver low-carbon electricity and industrial heat with superior economics, speed to deployment, and siting flexibility. In a world demanding rapid, scalable nuclear solutions, the IMSR Plant offers a viable, efficient alternative to both the limitations of legacy nuclear and the intermittency of renewables.

Corporate History

HCM II Acquisition Corp. ("HCM II") was a special purpose acquisition company incorporated on April 4, 2024, as a Cayman Islands exempted corporation for the purpose of effecting a merger, share exchange, asset acquisition, stock purchase, reorganization, or similar business combination with one or more businesses. On October 23, 2025, HCM II domesticated as a Delaware corporation and changed its name to "Terrestrial Energy Inc." (the "Company"). On October 28, 2025, pursuant to the Business Combination Agreement, dated as of March 26, 2025, as amended (the "Business Combination"), the Company completed the Business Combination with Terrestrial Energy Development Inc. ("TEDI"), a Delaware corporation, with TEDI surviving as a wholly owned subsidiary of the Company. Following the Business Combination, the Company became a holding company whose operations are conducted through TEDI and whose primary asset is its equity interest in TEDI. For accounting and financial reporting purposes, the Business Combination was accounted for as a reverse recapitalization, with TEDI treated as the accounting acquirer and HCM II treated as the accounting acquiree.

Market Opportunity

Global energy fundamentals are shifting rapidly in response to geopolitical tensions, infrastructure demands, and surging electricity consumption, with nuclear energy emerging as a critical component of future supply. According to the U.S. Energy Information Agency ("EIA") and its International Energy Outlook of 2023, global primary energy demand is projected to rise 29% from 2025 to 2050, and electricity generation by 43% in that same period.

Nuclear energy's role in meeting this demand is driven by both energy security objectives and changing requirements from innovations such as those in the digital economy. In advanced economies, energy supply growth is hindered by electric transmission and pipeline congestion, leading governments and industrial consumers to reconsider electricity infrastructure and reframe nuclear energy, particularly distributed generation solutions with small and modular nuclear plants as a pillar of strategic energy reliability.

Governments are responding with forceful and coordinated action. On May 23, 2025, the President of the United States signed a set of executive orders that lower deployment barriers and streamline federal support for developing new nuclear energy technologies. These actions follow a broader policy pivot, where national energy strategy is increasingly aligned with national security strategy. Compared to past decades, the recent policy recognition of the advantages of nuclear energy is exceptional and a positive development for the nuclear energy industry.

In this policy and market demand context, we believe our IMSR Plant is well-suited to meet the urgent energy priorities now shaping markets and policy across advanced economies to deliver secure, reliable, and resilient power at a time when nations are reasserting control over critical infrastructure and supply chains.

The IMSR Plant we are developing offers a scalable solution for governments and industries seeking reliable energy at fossil fuel scale. It is designed to provide low-cost, firm power and deployable at or near sites of industrial demand enabling distributed generation with customizable thermal and electric output. This decentralized capability will reduce transmission risks, enhance energy autonomy, and support rapid deployment without requiring major grid expansion. As demand accelerates across sectors, we believe our IMSR Plant will enable and promote both economic competitiveness and sovereign energy resilience.

We estimate our current serviceable addressable market ("SAM") to exceed $1.4 trillion in Organisation for Economic Co-operation and Development ("OECD") countries ($800 billion in grid-based electricity and $600 billion in high-temperature industrial heat), growing to $1.9 trillion by 2050.

Overview

IMSR and Gen IV Technology

Our IMSR is a Molten Salt Reactor ("MSR"), one of the generic advanced reactor technologies classified as a Generation IV ("Gen IV") reactor by the Generation IV International Forum ("GIF"), an intergovernmental organization founded in 2001 by the United States, Canada, the United Kingdom, and other member countries as they aimed to respond to the economic, environmental and social requirements of nuclear energy in the 21st century. GIF members seek to bring to market advanced reactors through international collaboration for their timely development. Its objectives for selecting Gen IV reactor technologies are those that encompass enhanced fuel efficiency, minimized waste generation, economic competitiveness, and adherence to rigorous safety and proliferation resistance measures.

The Gen IV reactor class is a diverse set of reactor technologies, fundamentally distinct from legacy (Light Water Reactor) nuclear technology. Despite wide variations, Gen IV reactor technologies generally have a principal common operational attribute: they operate at higher temperatures (approximately 400°C to 800°C).

We believe that the reactor technology and nuclear plant design choices that we have used in our IMSR Plant design address a major factor limiting the growth of nuclear energy supply: the fundamental capital inefficiency of legacy nuclear technology, and by extension the uncompetitive levelized cost of nuclear energy supply over full life of plant. Legacy nuclear technology was originally developed for military submarine propulsion and adapted for civilian use in the 1950s. New nuclear plants built using legacy nuclear technology today face increasing economic challenges and a threat of economic obsolescence due to rising construction costs, costly and complex regulatory requirements, and limited operational flexibility. We believe that new plants built on legacy nuclear technology will not be commercially viable without substantial public subsidies and sponsorship. In addition, they are generally only well suited for serving electric grid markets and are not well aligned with energy demand requirements for distributed and efficient supply of cost-competitive and flexible thermal and electric energy.

An MSR uses a molten salt as both the nuclear fuel and reactor coolant, in contrast to legacy nuclear technology that uses a solid nuclear fuel arranged in assemblies of fuel rods and water as the reactor coolant. Molten salt coolants are thermally far more stable than water, which enables stable, high-temperature reactor operation. This importantly allows for high-efficiency steam turbines operation and electric power generation, as well as the direct supply of high-temperature thermal energy for industrial plant operators seeking clean energy alternatives to fossil fuel combustion in industrial processes. Our IMSR Plant incorporates our proprietary design of MSR.

We have developed a recognized expertise in MSR technology since inception of our company in 2013. At the invitation of the Canadian government in May 2019, our Company, represented by our Chief Technology Officer, joined the Gen IV International Forum as a signatory to the MSR provisional System Steering Committee. To our knowledge our Company is currently the only private sector company that is a signatory; we believe this demonstrates the Company's leadership position in MSR technology.

We have designed our IMSR Plant to be small and modular, which we believe will enable greater geographic siting flexibility and more efficient construction through the use of factory manufactured modules and their on-site assembly. We believe the market will demand clean, firm, and cost-competitive energy at, or near to, the point of industrial demand to mitigate grid and pipeline congestion. We believe that the IMSR Plant's attributes including its size and modular architecture, and economic efficiency, may make it a competitive and timely solution to this demand.

Our IMSR Plant will use low enriched uranium enriched to <5% U235, which we refer to as standard-assay low enriched uranium ("SALEU"). This is the nuclear fuel used by the large majority of the world's nuclear plants and widely available in today's nuclear supply chain. We have intentionally avoided high-assay low enriched uranium enriched to between 15% and 19.9% U235 ("HALEU"), the nuclear fuel used by competing Gen IV technologies. We believe that HALEU presents substantially greater supply chain challenges than the SALEU used by the IMSR Plant. Accordingly, we believe that the use of SALEU will position the IMSR Plant more favorably for earlier deployment than other Gen IV technologies using HALEU as their nuclear fuel.

Since 2015, we have engaged with U.S. and Canadian nuclear regulators and achieved clear IMSR Plant regulatory milestones, which are described in the "Regulatory Matters" section below. Based on our experiences from our engagements with nuclear regulators, including the Canadian regulator's programmatic review of our IMSR Plant design concluded in April 2023, we believe that the IMSR Plant is well-positioned to secure regulatory approval for commercial operations in the U.S. and other target markets upon application by customers. Commercialization of the IMSR Plant is subject to applicable regulatory approvals. See "— Regulatory Matters" below.

Our business model is intended to support long-term, recurring, and capital-efficient revenue streams through the development, commercialization, and deployment of our IMSR Plant. Our customers will be IMSR Plant project developers who are also likely to be the owner-operators of the IMSR Plant to whom we plan to provide engineering and construction services and supply fuel and key components. We intentionally avoid a build-own-operate model for nuclear plants, preferring to leverage scale in our nuclear supply chain to support faster deployment of IMSR Plants to the owners/operators of nuclear plants, subject to regulatory and market conditions.

We expect our revenues to derive from four principal streams — (i) pre-construction services, (ii) construction services and component supply, including the main reactor component called the "IMSR Core-unit", (iii) post-construction IMSR Core-unit supply and (iv) post-construction IMSR fuel supply. Each revenue stream is anticipated to be repeatable across multiple IMSR Plant projects simultaneously, and IMSR Core-unit and IMSR fuel supply revenues are structured to recur throughout the 56-year operating life of an IMSR Plant. The operating life of the IMSR Plant is 56 years by design; revenue generation for the Company begins during pre-construction and construction, typically four years or more, making the period of revenue generation for the Company over 60 years excluding decommissioning services. Each subsequent IMSR Core-unit replacement cycle provides an additional revenue opportunity at attractive margins.

In response to evolving market demand for our IMSR Plant, we have a pipeline of over ten early-stage IMSR Plant projects each at an identified site. We play an active role in the establishment of each project and its member consortium. An IMSR Plant project is established with an initial consortium of members, and each includes one or more of off-takers, site owners, nuclear plant operators, and suppliers expressing interest in the project with an MOU and/or LOI. Our portfolio of early-stage projects covers a range of industrial sectors such as mining, chemical and petrochemical production, data centers, and grid power provision. Our near-term project milestones include the completion of site characterization work, which is the antecedent to the project's submission of a USNRC Construction Permit application. We establish a project's initial consortium by drawing from our portfolio of over 50 collaborative industry relationships, where each such relationship has expressed an interest in our IMSR Plant and has undertaken investigations and due diligence. We expect these collaborative industry relationships to support the growth of our project pipeline with additional IMSR Plant projects. Illustrating this approach to IMSR Plant project development from the formation of its initial consortium, we have announced developments with consortia members and projects over the last 12 months with industrials, suppliers, research partners, and site owners, such as Schneider Electric, Zachry Group, Viaro Energy, Energy Solutions, Texas A&M University and most recently Ameresco. To illustrate further, our Texas A&M project consortium consists of an EPC, a nuclear utility, the site owner, a nuclear fuel supply, and other suppliers.

Our Texas A&M project is a collaboration with Texas A&M University, a leading nuclear engineering and technology university in the U.S., to construct and operate a commercial IMSR Plant at its RELLIS campus in Bryan, Texas, as well as undertake IMSR system R&D testing activities employing the expert resources of the university's engineering faculty. Our collaboration with Texas A&M has the potential to accelerate our business plans, in particular as it aligns with recent policy statements supporting the commercialization of advanced nuclear technologies made by the Trump Administration, and U.S. Federal and Texas state governments.

We believe the development and commercialization of the IMSR Plant aligns with increasing U.S. and international policy support for nuclear innovation, driven by national energy supply insecurities, and elevated by geopolitical risks such as the Ukraine War. Other recent international developments, such as the declarations at the 28th Conference of the Parties to the UN Framework Convention on Climate Change ("COP28") in Dubai, have underscored the necessity of a massive expansion of nuclear energy supply to achieve policy, economic and environmental goals. Our technology development roadmap targets first commercial operations of an IMSR Plant during 2034, subject to regulatory approval and financing, with commercial fleet deployment anticipated in the late 2030s.

Our IMSR Plant's Competitive Strengths

Our IMSR Plant incorporates operating characteristics that differentiate it from nuclear plants built using legacy nuclear technology as well as other competing Gen IV reactor technologies. We believe that these differentiating operating characteristics create competitive advantages for our IMSR Plant.

- **High-temperature and low-pressure reactor operation with high inherent safety for efficient electricity generation and thermal energy supply for industrial processes.** Our IMSR Plant's MSR technology is designed to enable it to supply thermal energy at 585°C from a reactor that operates at low pressure with high inherent safety. These are not the defining characteristics of legacy nuclear technology nor many other Gen IV technologies. Importantly at this high temperature, the IMSR Plant facilitates high-efficiency steam turbine operation and electric power generation as well as direct application to a broad set of industrial processes that require these high temperatures, such as chemical synthesis, petrochemical refining, materials manufacturing, and efficient hydrogen production. By comparison, legacy nuclear technologies typically supply thermal energy at <300 °C, which when used for steam generation leads to lower efficiency for turbine operation and electric power generation. Other current Gen IV competing technologies generally range from 440-585 °C and are less well-suited for high temperature industrial applications.

- **Availability of Nuclear fuel supply**. Our IMSR Plant uses SALEU nuclear fuel, as opposed to more expensive and supply-constrained HALEU nuclear fuel relied upon by other competing Gen IV technologies, including those using MSR technology. SALEU fuel has been the standard fuel used by legacy nuclear technologies for many decades, and as such, is generally available from the current nuclear supply chain in commercial quantities, and the regulatory requirements for its safe and secure use are long established and widely understood in the nuclear industry. Our use of SALEU aligns our IMSR Plant with existing fuel suppliers and fuel supply regulatory frameworks for production and transportation, potentially supporting earlier commercialization. We believe that our IMSR Plant is one of the very few Gen IV nuclear plant designs that provides high temperature output using SALEU as opposed to HALEU nuclear fuel.

- **Cost Efficiencies and Use Flexibility from Separating Nuclear and Thermal/Electrical systems.** Our IMSR Plant's Nuclear Facility consists of nuclear systems that are required to comply with nuclear regulatory standards for operation (see Figure 3 on page 18 below), the Plant's Thermal and Electric Facility are separate and remote from nuclear systems. We believe that as a result of MSR technology and plant design features, the Thermal and Electric Facility systems fall outside the scope of nuclear regulation, which we believe provide the IMSR Plant a competitive advantage compared to legacy nuclear reactors and most other Gen IV nuclear technologies.

This regulatory separation is typically not achievable with legacy nuclear technology nor with other Gen IV technologies, which generally integrate nuclear and thermal supply systems within a single set of regulated nuclear systems. We believe that the functional and regulatory separation of the IMSR Thermal and Electric Facility enables commercial flexibility to tailor the IMSR Plant's thermal and electrical output to specifical industrial needs, particularly for near- or co-located deployment at industrial facilities.

In addition, as Thermal and Electric Facility systems and their components are not required to meet nuclear-grade standards, we believe that we will be able to construct the Thermal and Electric Facility with many off-the-shelf components from the broader industrial supply chain. We anticipate that this will reduce costs, reduce procurement timelines, and enable greater scalability in delivery.

- **Load-following and black-start capability.** Our IMSR Plant is designed to be capable of rapid load-following, enabling it to back-up variable wind and solar generation. Our IMSR Plant is also capable of starting and operating without grid power ("black-start capability"); nuclear plants using legacy nuclear technology are typically not black-start capable and exhibit poor if any capability to load-follow. We believe these features of our IMSR Plant will contribute to grid resilience and reliability and therefore are valued by grid operators.

- **Plant size and siting flexibility.** Our IMSR Plant is sized to supply 822MW (net) thermal, which can be used to generate 390MW (net) of electricity if desired. We believe this scale is well-suited for both grid and industrial customers seeking distributed generation and both thermal and electric demand. The IMSR Plant is intended to support near- or co-located siting including "behind-the-fence", enabling direct delivery of at-scale, clean, firm thermal and electric energy to the point of industrial demand, and therefore avoiding electric grid transmission and natural gas pipeline congestion.

- **Modular architecture for efficient construction.** Our IMSR Plant is designed with modular architecture to support factory fabrication of key systems and components. This modularity is intended to substitute on-site construction with more efficient and lower cost factory-based construction, enable further efficiencies from serial component production, and ultimately reduce IMSR Plant construction time and cost.

- **Supply Chain.** Our supply chain strategy covers sourcing of components such as reactor vessels, heat exchangers and steam turbines, as well as materials such as graphite and the chemical components of the IMSR fuel salt eutectic ("IMSR Fuel Salt") and services necessary to construct and operate IMSR Plants. Our IMSR Fuel Salt avoids the use of isotopically enriched lithium or beryllium proposed by others. Our supply chain strategy aims to secure these components, materials and services from suppliers at the scale necessary to achieve our objective of fleet operation of IMSR Plants in the late 2030s.

- **Demonstrated MSR technology.** Our IMSR design intention has been to leverage research and development of MSRs by national laboratories over many decades, starting in the 1950s and 1960s at the U.S. Department of Energy's Oak Ridge National Laboratory (ORNL), which included the construction and operation of three test reactors. Our design process has combined this extensive body of historic R&D with the powerful computing and modeling capabilities of the modern nuclear industry. We believe that this approach facilitates an efficient IMSR Plant design process and supports our timetable for commercialization.

- **Experienced Professional Management Team with Deep Technical Experience.** We have a highly educated and growing workforce of approximately 80, 29 of whom have advanced degrees in engineering and science. We have a seasoned leadership team with over 170 years of cumulative experience in the nuclear and energy industries, in addition to those with nuclear regulatory experience over many decades with the U.S. Nuclear Regulatory Commission ("USNRC") and the Canadian Nuclear Safety Commission ("CNSC"). Together, we bring expertise and experience from several industries, such as from the nuclear power, aerospace, and petrochemical sectors, to deliver on our mission.

Historical Results and Recent Developments

To date our revenues have derived from preliminary site assessment and pre-construction engineering services. Since inception, we have invested substantial resources in R&D and testing of IMSR nuclear systems to complete the IMSR Plant design and to prepare for regulatory submissions. Accordingly, we have a history of operating losses and negative cash flows since inception funded with a series of private placements; our accumulated deficit is $124.6 million as of December 31, 2025. To commercialize our IMSR Plant will require additional capital investments; since December 31, 2024, we have raised $36.7 million of additional capital, including a $25.8 million preferred stock private placement on July 1, 2025, and $292 million of gross proceeds before expenses from the business combination as discussed above. For further information regarding our historical results and financial condition, see "Management's Discussion and Analysis of Financial Condition and Results of Operation of Terrestrial Energy" and our consolidated financial statements included elsewhere herein. For information regarding risks regarding our business, see "Risk Factors — Risks Related to Our Business and Industry" and "— Risks Related to Compliance with Law, Government Regulation and Litigation" and "— Risks Related to Terrestrial Energy's Capital Resources."

Industry

Energy market supply-demand dynamics

We believe recent energy market fundamentals create a compelling demand case for a large-scale expansion of nuclear energy supply. Global energy demand continues to increase driven in part by energy-intensive industrial transformation. In parallel, governments and major industrials and technology companies are increasingly focused on technologies that can deliver clean, firm, and cost-competitive energy supply at the point of energy demand. We believe nuclear energy is the only scalable supply source that meets these anticipated demand requirements.

Additional structural drivers are also contributing to increased demand for new nuclear capacity and distributed energy generation solutions. These include energy security concerns, grid transmission and natural gas pipeline congestion, and industrial decarbonization needs. We believe these pressures, amplified both by government policy and growing energy demand from energy-intensive industries, create a strong stimulus for the nuclear sector to deliver supply solutions.

Governments are responding with significant and clear policy support as well as ambitious deployment targets. At COP28 in 2023, the United States and more than twenty other countries made commitments to triple global installed nuclear capacity by 2050. We believe the operational and performance merits of our IMSR Plant place us in a competitive market position as these strong sector dynamics unfold. The Trump administration has continued to signal its support for nuclear energy, with specific policy steps to promote domestic nuclear energy, including supporting advanced reactors, expediting construction permit review, and supporting continued research and development, and issued a series of executive orders on May 23, 2025, further promoting domestic nuclear energy. President Trump's executive order in May 2025 created a new U.S. Department of Energy ("DOE") pathway (the Advanced Reactor Pilot Program) to fast-track commercial licensing activities for small and modular nuclear plants that use advanced reactor technologies, expediting their broad deployment. On August 12, 2025, the Company announced that it had been selected for the DOE's Advanced Reactor Pilot Program.

Fundamental limitations of legacy nuclear technology

In our view, nuclear plants using legacy nuclear technology are not well-positioned to take advantage of this nuclear renaissance as they are saddled with acute economic and efficiency challenges. Over the past decade, every new nuclear plant construction project in North America and Europe using legacy nuclear technology experienced significant cost overruns, construction delays, and other economic and operational challenges. We believe these outcomes are the manifestations of the economic limitations of legacy nuclear technology due to low capital efficiency, high upfront costs, and long construction timelines. We believe these projects are economically cost-prohibitive on a standalone project basis and only moved forward due to large-scale public sector sponsorship.

Projects such as the Alvin W. Vogtle Units 3 and 4 (U.S.), Olkiluoto 3 (Finland), Flamanville (France) and Hinkley Point C (UK) typify these challenges. Vogtle Units 3 and 4 were completed seven years behind schedule with a cost overrun of $17 billion. The National Association of Regulatory Utility Commissioners ("NARUC"), the association of state public utility commissioners, has expressed apprehension toward approving similar large-scale nuclear projects in the future.

The fundamental economic limitations of legacy nuclear technology are linked to its operational characteristics. Using water as the reactor coolant, legacy nuclear technology is limited to low-temperature reactor and high-pressure operation. This results in the engineering expense of designing high pressure cooling systems to nuclear safety standards, and the consequences of low-temperature heat and steam supply (<300°C), which are low turbine efficiency for electricity generation and high levelized cost. In addition, at these low temperatures, legacy nuclear technologies are generally unsuitable for many industrial heat processes, such as chemical synthesis and petrochemical refining, which generally require high-temperature (>400 °C) thermal energy supply.

With these limitations, we believe legacy nuclear technology is not practical for thermal energy supply for industrial applications and its use is limited to electric power generation. Furthermore, the need to strive against low efficiency for acceptable commercial performance has resulted in the repeated application of economies of plant unit-scale as plant designs have evolved, leading to ever larger plant designs. With increasing size, plants using legacy nuclear technology have trended toward centralized deployments, which are generally unsuitably sized for distributed energy generation and private project financing models. We believe the IMSR Plant design incorporates technology and design features to address these limitations.

Industrial thermal energy supply

The industrial sector has proven to be an obstacle to achieve decarbonization targets. Due to a lack of practicable alternatives to fossil fuel combustion for thermal energy supply, the sector remains one of the most carbon-intensive segments of the global economy, accounting for more than 30% of final energy demand according to the International Energy Agency, and 20% of CO_2 emissions according to analysis by McKinsey & Company.

Industrial thermal energy supply remains dependent on natural gas and heating oil, unlike electric energy supply, which has already been partially decarbonized with hydroelectric plants, plants employing legacy nuclear technology, and renewable (wind and solar) power plants. The U.S. Department of Energy ("DOE") and International Energy Agency ("IEA") both cite industrial process heat as the most difficult segment to decarbonize, due to its high temperature requirements, 24/7 demand, and sensitivity to energy cost.

The IMSR Plant is designed to supply industrial-grade heat at 585 °C — sufficient for more than two-thirds of industrial thermal applications. The IMSR Plant's ability to provide reliable, high-temperature thermal energy without greenhouse gas emissions allows it to replace fossil combustion systems at many industrial facilities, such as those associated with chemical and petrochemical production.

Electricity supply

Power plants with the ability to "dispatch" supply — meaning supply that can be quickly varied to meet fluctuations in demand — are highly valued by grid operators mandated to deliver reliable grid supply for all consumers irrespective of the time of day or local weather conditions. While supply from renewable (wind and solar) plants can provide low-cost electricity, it is generally not dispatchable, which may create challenges for grid reliability in the absence of complementary dispatchable supply. Today, dispatchable supply is largely provided by fossil fuels, which are vulnerable to fuel price volatility and contribute significantly to greenhouse gas emissions.

Our IMSR Plant is designed to provide grid operators with new dispatchable electricity supply without the environmental impacts of fossil fuel generators. We believe that the IMSR Plant's 390 MW (net) designed electrical output is also capable of meeting utility-scale needs for dispatchable zero-carbon electric energy supply, and its small land footprint allows for flexible siting and distributed generation, which has the potential to mitigate electric grid congestion. As described in more detail below, we believe the IMSR Plant would also pair well with many of the hundreds of sites in North America which previously hosted coal generation plants.

Competitive levelized cost of thermal and electricity

We estimate, based on internal cost modeling and market data, that the IMSR Plant may achieve a Levelized Cost of Electricity ("LCOE") of approximately $69/MWh and a Levelized Cost of Heat ("LCOH") of approximately $8.60/MMBtu. We believe these estimates may position the IMSR Plant favorably in competitive markets relative to competing dispatchable energy supply alternatives, including solar plants and battery storage, combined-cycle and simple-cycle natural gas plants, and some plants using legacy nuclear technology.

The assumptions for the estimated LCOE of $69/MWh and LCOH of $8.60/MMBtu draw from the "Nth" Commercial Plant" ("NCP") basis where both upfront capital expenditures and operating & maintenance costs are reduced from the "First Commercial Plant" ("FCP") as a result of learning curve effects on costs from prior experience. The Company's cost estimates for its FCP are in part derived from capital cost estimates obtained by the Company from third-party nuclear plant cost engineers during a procurement engagement and in collaboration with a nuclear utility during 2020 and 2021. In 2025, Terrestrial Energy revised these estimates to reflect the estimated impact of inflation on the materials and services costs estimated in 2021. The target date of the deployment of the NCP cannot be estimated based on the early stage of our commercial pipeline. The LCOE and LCOH estimates are based on an IMSR Plant consisting of two operating IMSRs for a plant capacity of 390 MWe or 822MWt net output.

The calculations of LCOE and LCOH are principally derived from: the total amount of electricity (MWh) or heat (MMBtu) generated and operating & maintenance costs over the 56-year operating life of the plant; total plant upfront capital expenditures; and cost of capital. The LCOE and LCOH is defined by the cost that achieves a project zero net-present-value. We have assumed a 7.5% and 7.0% for the project developer's cost of capital over the project's construction and operation periods, respectively. We have assumed a 4-year construction time and a 95% plant capacity factor. We have not assumed any federal or state subsidies, although we believe that a number may be available. Our LCOE and LCOH estimates are most sensitive to the IMSR Plant's upfront capital expenditures, and the project developer's cost of capital assumptions as our IMSR Plant is a long duration asset. Our LCOE and LOCH calculations were prepared in good faith by our management team and are based on our management's reasonable estimates and assumptions with respect to the expected performance of Terrestrial Energy, as applicable, at the time those estimates were prepared and speak only as of that time. We are not aware of subsequent developments that would materially impact our views regarding these estimates as of the date of this filing.

Key market verticals for deployment

We are focused on deploying the IMSR Plant in three industrial verticals: data center electricity supply, thermal and electric energy supply for the industrial sector, and in the coal sector as a technology to convert ("repower") coal plants. We believe that the IMSR Plant's operational capabilities are most competitive in these three large market verticals beyond grid deployment.

- **Data center supply.** The rapid growth of artificial intelligence, cloud computing, and digital infrastructure has led to equally rapidly growing energy demands for around-the-clock, reliable, scalable electricity. The IMSR Plant is designed to provide cost-competitive, firm dispatchable power with zero carbon emissions, which we believe may be a viable alternative in this market sector to power plants using fossil fuel thermal generation, intermittent renewable technology (wind and solar) and other nuclear technologies.

- **Industrial.** Our IMSR Plant addresses a major and unsolved decarbonization challenge: the provision of clean, firm, high-temperature thermal energy for industrial processes. Many of these — such as chemical synthesis, petrochemical refining, materials manufacturing, and efficient hydrogen production — require sustained thermal energy at temperatures above the capabilities of legacy nuclear technology. The IMSR Plant is designed or expected to deliver heat at temperatures suitable for more than two-thirds of these applications while also offering co-generation of electric energy. Its compact footprint and modular design may support near- and co-located deployment across a range of industrial facilities.

- **Repowering Coal Plants.** A potential large and immediate market for our IMSR technology is in the replacement of retiring coal-fired power plants. According to a 2022 U.S. Department of Energy report, more than 80% of U.S. coal plant sites are suitable for conversion to advanced nuclear based on factors such as infrastructure, transmission access, and regulatory feasibility. These sites represent a 198.5 GWe installed base, much of which is slated for retirement by 2035. The IMSR Plant is well matched to these projects due to its compatible output temperature and suitable size, and potential reuse of existing balance-of-plant assets such as generators, cooling systems, switchyards, labor force and grid interconnections. This may reduce project costs and shorten construction timelines.

Our Business Model

Our business model is intended to support long-term, recurring, and capital-efficient revenue streams through all phases of deployment and operation of our IMSR Plant. Our customers will be the owner-operators of the IMSR Plants to which we provide pre-construction and construction engineering services and supply of fuel and major components. We intentionally avoid a build-own-operate (BOO) model for nuclear plants, preferring to leverage the existing scale and capabilities in our nuclear supply chain to support faster deployment of IMSR Plants. Our revenue strategy spans the 60+ year IMSR Plant project lifecycle (its 56-year operating life plus plant pre-construction and construction periods).

This full-lifecycle, low capital expenditure business model is purposefully designed to maximize returns while reducing capital intensity and exposure to construction and operational risks. We are strategically positioned as a nuclear plant designer, major components (most importantly, the reactor itself — the IMSR Core-unit) and nuclear fuel supplier (the IMSR Fuel Salt), rather than a plant owner or operator, thereby reducing exposure to construction risk, accelerating the path to scalability, and establishing a repeatable project development template that may support recurring revenues across a growing base of IMSR Plants in construction and operation. This approach broadly resembles established business models in the nuclear sector, where nuclear plant design providers supply key components including IMSR Fuel Salt and long-term support services without owning or operating end-user infrastructure.

Project economics

The expected cost for our NCP, inclusive of all construction, commissioning, and licensing activities is based on detailed cost engineering work firstly conducted by a third-party engineering firm with a prospective owner-operator customer in 2020 – 2021, and leverages the management team's combined industrial and nuclear engineering experience. The capital cost range reflects a modeled NCP scenario, incorporating anticipated cost reductions from supply chain maturation and learning curve effects. Early-stage plants are expected to have higher costs, while later units benefit from standardization, volume procurement, project management efficiencies, and reduced construction time and risk leading to lower financing costs. For further information regarding assumptions and other considerations in connection with these estimates, see "— Lifecycle Unit Economics" below.

We anticipate that capital expenditures to construct an IMSR Plant will be borne by the project's consortium partners, primarily by its operator, offtake customers, suppliers as well as third-party project investors, which may include the public sector. At the project level, we expect to be supplying the IMSR Plant design, key components (such as the IMSR Core-unit and associated systems), the IMSR Fuel Salt, and services, many under long-term contract arrangements as described below.

Revenue streams

We expect our revenues to derive from the Company's project delivery model, which consists of four principal revenue streams (see Figure 1). Each is anticipated to leverage Terrestrial Energy's proprietary nuclear plant design and technology, its licensing expertise, its developed supply chain, and the project delivery models' repeatability across multiple IMSR Plant projects operating simultaneously. The IMSR Core-unit and IMSR Fuel Salt supply revenues are structured to recur throughout the 56-year operating lifecycle of an IMSR Plant (see Figure 2). Each subsequent IMSR Core-unit replacement cycle provides an additional revenue opportunity at attractive margins. The selection of these four revenue streams is intended to optimize recurring revenue potential, reduce capital intensity for Terrestrial Energy, and support a scalable fleet-based business model.

		Estimated over 60+ year total plant life		
Segment	**Description**	**Cumulative revenue $M**	**Total %**	**Gross margin %**
Pre-construction services	Site selection, site and use-specific engineering studies for construction and licensing planning preparation	$75	4%	31%
Construction services & component supply	Supply of services and components as set out in the Company's Product Delivery Model for construction and commissioning of an IMSR Plant	$486	23%	27%
Post construction IMSR Core-unit supply	Supply of replacement IMSR Core-units every seven years. Contracted ongoing O&M services to the power plants for the duration of operational life (50+ years)	$1,148	55%	20%
Post construction IMSR fuel supply	Supply of IMSR Fuel Salt for the ongoing operation of an IMSR Plant	$389	18%	20%
Cumulative		**$2,098**	**100%**	**22%**

Figure 1: Illustrative potential revenue streams

Pre-construction services. We anticipate generating early-stage revenue through the supply of site- and use-specific engineering services to IMSR Plant projects to support project development, construction and procurement planning, and the preparation of USNRC construction permits. These services are typically offered on a fixed-fee or time-and-materials basis. While comprising a modest portion of total IMSR Plant life-time revenues (~4%), they create early cash flow, initiate project development activities, establish relationships with IMSR Plant developers, and the supply chain. We have conducted several engagements related to pre-construction services that have generated initial revenue.

Construction services, IMSR Core-unit and component supply. We anticipate generating further revenue through the supply of engineering services, major components (including supply of first IMSR Core-units), IMSR Fuel Salt to IMSR Plant projects supporting construction, USNRC operation license submissions, and commissioning. This revenue stream is expected to represent approximately 23% of IMSR Plant project lifecycle value, supported by a developed supply chain and nuclear-qualified manufacturing partners, enabling scalable deployment and cost control.

Post-construction IMSR Core-unit supply. We anticipate generating further revenue from the supply of IMSR Core-units to operational IMSR Plants over the expected 56-year operating life and ancillary operations and maintenance ("O&M") services. We expect this to be a significant and recurring revenue stream, which occurs on a predictable seven-year cycle over a plant's anticipated 56-year operating lifespan. Each IMSR Core-unit is replaced periodically with a "plug-and-play" maintenance procedure, which we believe achieves that necessary simplicity of maintenance to achieve a high plant uptime contributing to its capital efficiency. This model represents over 55% of IMSR Plant project lifecycle revenues and may support recurring major component supply revenue and gross margin contribution over time, subject to market adoption and plant deployment. To illustrate, over a typical 56-year operating life of an IMSR Plant, sixteen IMSR Core-units are required, the initial pair at commissioning plus fourteen replacements. Consequently, our revenue model is expected to provide recurring major component supply revenues per plant over many decades, subject to market demand and customer deployment.

Post-construction IMSR fuel supply. We intend to also supply IMSR Fuel Salt to operational IMSR Plants over the plant's 56-year operating life together with ancillary O&M services. IMSR Fuel Salt must be manufactured to the precise specifications of the IMSR Plant design as approved by the USNRC in the U.S. or the relevant nuclear regulator in non-U.S. markets. We intend to provide services at the end of IMSR Plant operating life to assist with the decommissioning of the IMSR Plant and its spent IMSR Fuel Salt.

The structure of the IMSR Plant project lifecycle, with a multi-decade operational design life, periodic core replacements, ongoing O&M contracts, and fuel supply, enables long-term revenue visibility that may provide a strong foundation for recurring, predictable, and durable cash flows, subject to successful commercialization. With each IMSR Plant requiring post-construction operations and maintenance support for 56 years, replacement of IMSR Core-units and IMSR Fuel Salt supply will generate revenue at regular intervals, such that we expect our business model to deliver recurring revenues with defensible gross margins that scale linearly with the installed base of operating IMSR Plants.

Lifecycle unit economics

Figure 2 below sets for our estimated lifecycle unit economics from the revenue streams described above and are based on a 60+ year IMSR Plant project lifecycle, with recurring revenue from IMSR Core-unit replacements every seven years and ongoing annual IMSR Fuel Salt supply. The model assumes a pre-construction stage and a four-year construction stage, with Terrestrial Energy earning revenue at each stage through engineering, procurement, and component supply services. The underlying project delivery model with its revenue volume and margin assumptions are drawn from the management team's estimates based on their experience in the nuclear energy industry. Specifically, unit economics are calculated at NCP status, reflecting industrial learning effects over a planned 10-plant deployment cycle, and include updated assumptions for higher uranium and enrichment costs, while excluding decommissioning expenses. See "— Competitive levelized cost of thermal and electricity" above. Our unit economics calculations were prepared in good faith by our management team and are based on our management's reasonable estimates and assumptions with respect to the expected performance of Terrestrial Energy, as applicable, at the time those estimates were prepared and speak only as of that time. We are not aware of subsequent developments that would materially impact our views regarding these estimates as of the date of this filing.

($ in M USD)	Construction and Commissioning to T=0					Operating life	Total plant life
	<T-4	T-4	T-3	T-2	T-1	56 years	60+ years
Revenues							
Preconstruction services	75	-	-	-	-	-	75
Construction services and component procurement	-	63	105	161	158	-	486
IMSR Core-unit supply and services	-	-	-	-	144	1,005	1,148
IMSR fuel supply and services	-	-	-	-	69	320	389
Total revenues	**75**	**63**	**105**	**161**	**370**	**1,324**	**2,098**
Gross profit							
Preconstruction services	23	-	-	-	-	-	23
Gross margin	*31%*	-	-	-	-	-	*31%*
Construction services and component procurement	-	17	28	44	43	-	132
Gross margin	-	*27%*	*27%*	*27%*	*27%*	-	*27%*
IMSR Core-unit supply and services	-	-	-	-	29	201	230
Gross margin	-	-	-	-	*20%*	*20%*	*20%*
IMSR fuel supply and services	-	-	-	-	14	64	78
Gross margin	-	-	-	-	*20%*	*20%*	*20%*
Total gross profit	**23**	**17**	**28**	**44**	**85**	**265**	**462**
Gross margin	*31%*	*27%*	*27%*	*27%*	*23%*	*20%*	*22%*

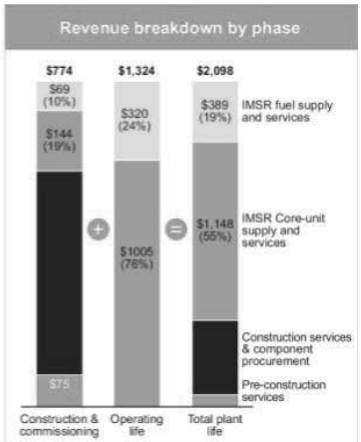


Figure 2: IMSR Plant project lifecycle unit economics

IMSR Plant Overview

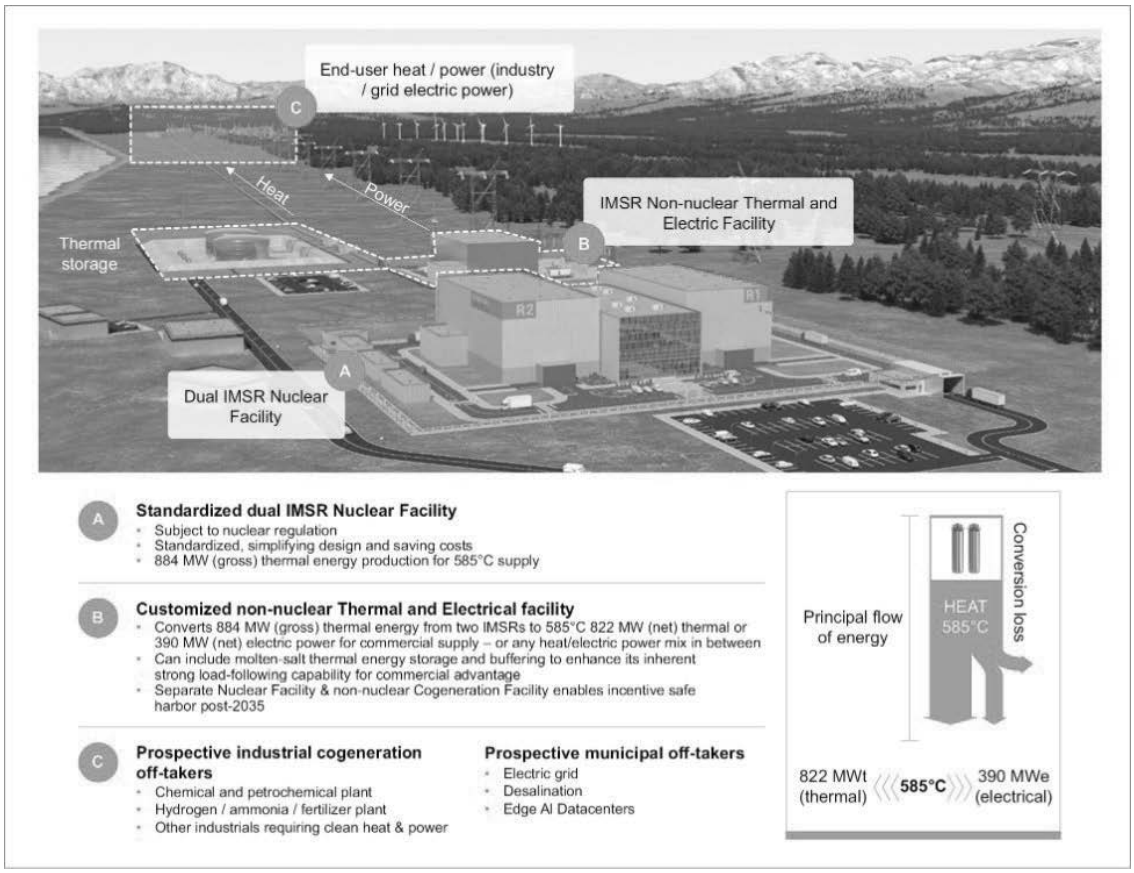


Figure 3: IMSR Plant with its customizable Thermal and Electricity Facility (“B”)

The figure above illustrates that the conceptual customization of Thermal and Electric Facility enabling the integration of other energy systems such as thermal storage to supply a near-located industrial facility (“C”). We believe that the Thermal and Electricity Facility can be hybridized with other energy systems, such as by integration with natural gas thermal energy supply. This is intended to serve as an initial source of thermal energy supply, and later as a backup source of thermal energy supply to the operating IMSR Nuclear Facility. We believe the customization of the IMSR Thermal and Electricity Facility with the integration of natural gas systems will accelerate commercial energy supply and increase the reliability of energy supply from a fully operational IMSR Plant; in our experience early electricity supply and reliably supply are both prized by industrial users and datacenter operators. While there are many methods to customize the IMSR Thermal and Electricity Facility, we are focused on the development of the small and modular regulated nuclear systems that form the Nuclear Facility (“A”) in the figure above, which is not conceptual but rendered from civil structures engineered by Terrestrial Energy and represents a part of IMSR Plant design that CNSC’s VDR reviewed. Our Company has a generic configuration of the Thermal and Electric Facility for 390 MW of electricity supply. We expect that the configuration of the Thermal and Electric Facility will be customized by project level requirements for energy supply.

Plant and infrastructure. Our IMSR Core-unit constitutes the primary nuclear system. It houses the key components such as graphite moderator, IMSR Fuel Salt, primary pumps and primary heat exchanges. We have agreements for the design and development of these components. Our supply strategy includes working with suppliers on plant infrastructure, such as turbine generators, simulation technology, and product lifecycle management.

Graphite supply. Our IMSR Core-unit utilizes a thermal spectrum nuclear system with graphite as moderator, requiring approximately 125 metric tons of graphite per Core-unit. We are evaluating the optimal graphite grade from variations offered by four leading nuclear graphite suppliers. Our rigorous selection process includes testing graphite samples at the High Flux test reactor in Petten, Netherlands owned by the European Union Joint Centre, the European Commission's science and knowledge service. We are undertaking an ongoing program of graphite irradiation testing at the Petten reactor for nuclear-grade graphite, advised by recognized industry leaders in graphite performance services.

Engineering services. Our planned supply of services to an IMSR Plant spans its full project lifecycle, providing an anticipated 60+ years of revenue opportunity. We expect that these engineering services will provide: (i) assistance with regulatory applications; (ii) project management and component procurement before and during construction; and (iii) operations and maintenance support during operation, including for IMSR Core-unit replacement management and fuel management. A pivotal development in our IMSR Plant project execution strategy is the timely selection of experienced engineering, procurement and construction firms with demonstrated nuclear power plant detailed design, construction, and large-scale procurement capabilities.

Nuclear fuel supply. We are engaged with suppliers including Springfields Fuels Limited, a Westinghouse subsidiary, to establish production capabilities for key IMSR Fuel Salt elements, including SALEU, with the scale to support a fleet of IMSR Plants operating in the 2030s. To provide supply chain resilience, we have engaged with other fuel vendors for similar services, and with those offering fuel transport packaging and shipping services, unenriched uranium supply, and enrichment services.

A major differentiator of the IMSR Plant among other competing Gen IV technologies, including those using MSR technology, is its use of SALEU as nuclear fuel. This is the enrichment standard of fuel for nuclear plants using legacy nuclear technology and has been in use for many decades. To our knowledge, almost all of the other competitive nuclear technologies in commercialization today — those capable of supplying high-temperature thermal energy — use HALEU. Commercial HALEU production requires the construction and licensing of entirely new enrichment facilities as current facilities cannot be converted to HALEU production. Prior to the Ukraine conflict, many of our competitors anticipated sourcing HALEU from Russian sources, which was the only known source of commercial supply. As a result of changing geopolitical factors, the U.S. government has funded pilot programs in onshore HALEU production, but it is currently available only in small test quantities.

We believe our fuel choice for the IMSR Plant aligns our product with existing fuel suppliers and fuel supply regulatory frameworks for production and transportation, potentially enabling earlier commercialization of our IMSR Plant and reducing the development and supply chain risks associated with restricted fuel types such as HALEU. In our view, the use of SALEU may also help mitigate policy and regulatory uncertainties in key markets.

The table below summarizes certain technical attributes and specifications of our IMSR Plant design.

IMSR Plant attribute	Specification
Reactor Type	Liquid fueled molten salt
Neutron Spectrum	Thermal
Reactor Thermal Output, gross	2x442 MWt
Power Plant Electrical Output, net	2x195 MWe
Moderator	Graphite
Thermal Efficiency (net)	44% for normal electric power configuration
Reactor Operating Pressure	Near Atmospheric
Temperature of thermal supply	585°C/1,085°F
Fuel and coolant salt eutectic (Fuel Salt)	Common Fluoride Salts with UF_4 – No beryllium or isotopically enriched lithium
Initial Fuel Enrichment	Less than 3% SALEU

IMSR Plant attribute	Specification
Make-up Fuel Enrichment	Less than 5% SALEU
Reactor Vessel Diameter (Core-unit)	4.1 m/13 ft.
Reactor Vessel Height (Core-unit)	18 m/59 ft.
Core-unit Design Life	Replaced every 7 years
Refueling	On-power make-up fuel added during reactor operation.
Plant Operating Life	56 years
IMSR Plant land footprint with the Thermal and Electricity Facility designed for electricity generation only	6.4 hectares/16 acres

Design, testing, and development status

We have developed an engineering program to advance the timely, safe and efficient evolution of the IMSR Plant within a controlled engineering environment. Our engineering program develops the design requirements and specifications of the Structures, Systems and Components that make up the IMSR plant. It employs advanced software and engineering methods used in the highly regulated aviation industry for document and design control, which we believe express best practice. During the CNSC's Vendor Design Review ("VDR") of the IMSR Plant design, the CNSC reviewed our engineering program and concluded that it was aligned to CNSC requirements for controlled development of a nuclear plant design.

Our engineering program consists of five distinct phases — Conceptual Engineering, Basic Engineering, Detailed Engineering, Operations Support and Decommissioning. Conceptual Engineering, which laid the foundation for the IMSR's nuclear systems, was completed in 2017 coincident with the first major regulatory milestone, the CNSC Vendor Design Review Phase 1. Basic Engineering was started immediately, and it developed safety and design requirements of the IMSR Plant, computer models for process systems and engineering of plant interfaces such as the relationship between mechanical and electrical systems of the IMSR Plant's Nuclear Facility. This work facilitated CNSC's VDR Phase 2 process. We considered the Basic Engineering phase complete in April 2023 when CNSC concluded its VDR and issued its Phase 2 report.

We are currently in the Detailed Engineering phase where design focus has moved from the system level to components and the performance requirements for integrated systems, including the requirements for their manufacture, construction and operation. This is an important undertaking to ensure plant economics are achieved.

Our engineering program is designed to coordinate with the scope and timing of elements of our R&D and testing program, as well as our supply chain development activities. Our objective is to ensure that we are able to validate & verify and qualify systems and materials with data secured from accredited R&D and testing counterparties to support our engineering program.

We have progressed the engineering of the IMSR Plant's Structures, Systems and Components to the Detail Engineering phase. The completion of Detailed Engineering requires that we have R&D and test data to support Operating License applications with nuclear regulatory authorities. We have advanced the engineering program of our IMSR Plant to complete the CNSC VDR, which reactor developers can complete during the design process if the applicable criteria are met. We believe that the conclusion of the CNSC's VDR as well as the co-incident inter-agency CNSC-USNRC review to be a positive reflection of our engineering program, R&D and testing program, and the status of our IMSR Plant design. Our engineering and R&D and testing programs are facilitating the preparation and submission of technical material to the USNRC supporting our pre-application engagement.

Our R&D and testing program has specified detailed individual tests that we need to undertake to qualify our materials, including our graphite moderator; those tests have been underway since 2020 at the NRG Petten reactor in the Netherlands and given us a deep understanding of graphite performance. Our R&D and testing program has specified the individual tests to qualify our IMSR Fuel Salt. While many tests have already been undertaken and are complete, giving us a deep understanding of graphite/fuel salt and alloy/fuel salt interactions, our program for IMSR Fuel Salt qualification is continuing.

We have developed a comprehensive code validation & verifications strategy, which is being implemented in part through U.S. DOE-funded projects targeting validation & verifications of physics and thermal-hydraulics computational models. We intend to build and operate test rigs that will deliver the data to validate and verify our key models for IMSR fission power control and heat transport. We consider all these activities to be typical for the design and licensing a fission reactor for commercial use.

Our engineering program has progressed our IMSR Plant design to a Preliminary Safety Analysis Report (PSAR) standard, a recognized development status of nuclear plant design in the nuclear industry. While we believe the status of our IMSR Plant design process to be satisfactory for an IMSR Plant project to secure a Construction Permit, this process must be substantially complete for an Operating License application and expressed by a Final Safety Analysis Report for our IMSR Plant design.

Regulatory Matters

Regulatory strategy and engagement

Our regulatory strategy has been a central element of our commercialization plan since the Company's inception. Its objective is to establish the IMSR Plant as licensable and deployable by the plant's owner-operator in key global markets, starting with the United States and Canada. We have structured our regulatory engagement to reduce commercial and development risks, which includes our objective to align to the greatest extent we can with existing regulatory frameworks, particularly in the United States and Canada. This approach supports strategic entry in other markets based on jurisdictional readiness and market demand.

The nuclear power industry in the United States is subject to extensive regulation by the USNRC and in Canada by the CNSC, which oversees licensing, safety, environmental impact, and decommissioning. Compliance with USNRC/CNSC regulations is mandatory at all stages of nuclear plant project development and operation, and regulatory approvals can significantly impact project timelines and costs. Additional oversight may come from federal, state/provincial, and local authorities, particularly concerning environmental and construction permits.

Our regulatory strategy has focused on early, collaborative engagement with regulators to develop our IMSR Plant design under regulator-informed conditions. Its intention is to reduce development risk, enhance commercial readiness, and establish a clear pathway for the deployment of the IMSR Plant by future owner-operators in key global markets. Importantly, as noted above, our Company does not intend to act as the licensee, owner, or operator of IMSR Plants. Our business model is based on the supply of nuclear reactor systems, fuel, and engineering services to owner-operator customers who are responsible for securing all necessary regulatory approvals. As such, our regulatory engagement is focused on providing a technology and design foundation that can support third-party licensing activities without requiring Terrestrial Energy itself to hold construction or operating licenses. This model reduces our direct regulatory burden and exposure to project-specific licensing timelines and requirements.

We have prioritized deep, early-stage technical engagement with the CNSC and the USNRC to advance mutual understanding of the IMSR Plant's design and licensing potential. This early engagement enables regulators to provide feedback on the design's alignment with existing regulatory frameworks and expectations well in advance of the submission of any construction and operating license applications. By investing in this pre-licensing dialogue, we have been able to systematically identify and address potential regulatory challenges, support future applications by owner-operators, and build commercial confidence in the IMSR Plant's licensability.

Until our successful completion of the Canadian Vendor Design Review (VDR) process described below, we focused on the CNSC regulatory process as it was accessible mid-design to a nuclear plant developer and aligned well with our business objectives. While we have planned for engagements with any other nuclear regulators, such as the Office of Nuclear Regulation in the United Kingdom, to date we have only engaged with the USNRC and CNSC. The completion of our engagement with the CNSC in 2023 has allowed us to focus on our USNRC engagement.

In 2019 we were selected by leadership of the USNRC and CNSC for the first-ever inter-agency collaborative cross-border regulatory review of a Gen IV reactor technology; the review was completed in May 2022. This joint review assisted with advancing regulatory understanding of our IMSR technology in advance of license applications. This cross-border regulatory collaboration provided early alignment on reactor design and licensing considerations across both agencies, facilitating future licensing submissions.

In 2016, we requested the CNSC to undertake a VDR of our IMSR Plant design. A VDR is a pre-licensing programmatic review of a nuclear power plant against Canadian nuclear regulatory requirements for commercial operation and is designed to identify early in the reactor design process any barriers to licensing for commercial use, and to establish commercial confidence in the "licensability" of a nuclear plant design before proceeding to site specific activities. The scope of the VDR covered design, operation and decommissioning of the IMSR plant. A completed VDR has historically been required by Canadian owner-operators of nuclear plants before a decision will be made to progress to site-specific licensing activities for a new nuclear plant, as it establishes the "licensability" of the nuclear plant, a critical commercial risk mitigator.

In April 2023, the CNSC completed its VDR of our IMSR Plant design. Our Company became the first developer of a Gen IV power plant to complete the CNSC's VDR. The CNSC issued a public summary report confirming that our IMSR Plant design meets the expectations set out in the 19 focus areas required for licensing, including reactor physics, thermal-hydraulics, human factors, fuel qualification, and decommissioning. The CNSC concluded that there are "no fundamental barriers to licensing" the IMSR Plant design in Canada for commercial use. The CNSC defines a fundamental barrier as "a failure to address known issues of safety significance or the use of unproven engineering practices for new or innovative design features (i.e., not adequately supported by analysis, research and development, or both)".

Consequently, we believe the CNSC VDR completion was a major milestone for our Company and our IMSR Plant commercialization program. While this does not constitute a regulatory approval of the design in Canada, it has provided us with a detailed understanding of regulatory requirements for licensed operation of an IMSR Plant and commercial confidence that our nuclear plant design, which employs MSR technology, is "licensable" for commercial use in Canada and, by extension, also potentially licensable in other Western markets. We believe that this is first time in Western markets that a power plant design using MSR technology has been presented to a leading nuclear regulator for a detailed and programmatic regulatory review for commercial use.

The insights gained through the VDR process — including regulator feedback on IMSR nuclear systems, fuel qualification, and safety-related features — are now being directly incorporated into the technical basis for future construction permit and operating license applications. This improves the completeness and defensibility of our licensing submissions.

In 2017, we started our engagement with the USNRC, entering a pre-application phase of the U.S. nuclear regulatory process with a program of technical reports, white papers and topical report submissions. Our USNRC pre-application engagement is guided by our regulator engagement plan, which we periodically update and file with the USNRC. This plan anticipates that we will seek as applicant 10 C.F.R. Part 52 Standard Design Approval of the IMSR.

For the FCP IMSR Plant project, we have assumed a 10 C.F.R. Part 50 licensing process, rather than a 10 C.F.R. Part 52 process. A Part 50 process bifurcates the process for licensing nuclear reactors into two steps, one for the Construction Permit and one for the Operating License, whereas the Part 52 combines the approval process for both the Construction Permit and the Operating License into a single application. The decision to use a Part 50 or 52 process will be made by the IMSR Plant project developer depending on the individual circumstances applicable to a project, which are not determinable at this time. The USNRC process permits our 10 C.F.R. Part 52 Standard Design Approval work to be transferred to support a 10 C.F.R. Part 50 application by the developer of our FCP IMSR Plant project. By pursuing this pathway, we believe this will accelerate our ability to receive a USNRC approval under Part 50. We anticipate that our FCP IMSR Plant project will consist of an approximately five-year pre-construction period, concluding with USNRC's issuance of a Construction Permit to the IMSR Plant project developer, and an approximately five-year construction period, concluding with the USNRC's issuance of an Operating License to the IMSR Plant project developer.

We anticipate assisting the IMSR Plant project developer with the preparation of the Construction Permit application to the USNRC. This will require the completion of the IMSR Plant's site characterization analysis, which covers site water, soil, weather, seismic and other environment datasets. We also anticipate assisting the IMSR Plant project developer with the preparation of the Operating License application to the USNRC. An Operating License application will require us to have substantially completed our IMSR Plant design as well as our R&D and testing program, which will achieve the validation & verification and qualification of IMSR plant nuclear systems required for USNRC approval of the Operating License application.

We have assumed a 10 C.F.R. Part 50 licensing process for an NCP IMSR Plant project. This is expected to consist of an approximately four-year pre-construction period, concluding with the USNRC's issuance of Construction Permit to the IMSR Plant project developer, and an approximately four-year construction period, concluding with the USNRC's issuance of an Operating License to the IMSR Plant project developer.

In addition to its value in supporting licensing efforts in North America, our regulatory engagement with the CNSC and USNRC is also expected to inform future licensing applications in other jurisdictions. The technical materials, methodologies, and regulatory precedents developed through our VDR with the CNSC and our pre-application interactions with the USNRC are intended to form a core body of licensing support documentation that can be adapted for use by our Company, as well as owner/operators in other national regulatory contexts. This includes markets such as the United Kingdom, where the Memorandum of Cooperation signed between the CNSC, USNRC, and the UK's Office for Nuclear Regulation ("ONR") facilitates trilateral information-sharing and collaborative review of advanced reactor technologies. We believe this formal regulatory cooperation, along with other multilateral initiatives, will enable the technical and regulatory basis for the IMSR Plant to be more efficiently recognized by regulators beyond Canada and the United States, enhancing the scalability and international deployment potential of our technology. Given the USNRC's international leadership in the establishment of nuclear regulatory standards, we believe that design approval by the USNRC will assist with our development and the market acceptance of a standard IMSR Plant design outside of North America, reducing the cost of subsequent regulatory review activities in international markets.

Coordinated with our CNSC VDR engagement, we have engaged with the International Atomic Energy Agency ("IAEA") as part of our program to ensure compliance with international safeguards for non-proliferation and security of nuclear materials. We continue to participate in global intergovernmental working groups on Molten Salt Reactor technologies, supporting our goal to establish the IMSR Plant and viable international solution in export markets beyond Canada and the United States.

Environmental, Health and Safety

The IMSR Plant presents known and novel safety, health, and environmental risks with respect to its construction, operation, IMSR Core-unit replacement, IMSR spent fuel and Core-unit storage, and decommissioning. These activities share risks common to energy-related capital projects, such as construction safety, industrial hazards, and material handling risks.

The IMSR Plant also presents unique risks due to its nuclear fission process and innovative design, including the use of IMSR Core-unit and IMSR Fuel Salt. We believe many of these risks are mitigated by our design of safety systems for our IMSR Plant and its high inherent safety in operation attributable to our use of MSR technology and our proprietary design of MSR. By design, during IMSR operation non-gaseous radioactive products and by-products of the fission process are contained in the sealed IMSR Core-unit and immobilized in the IMSR Fuel Salt via strong ionic chemical bonding. Gaseous fission products are captured safety by a specifically designed "off-gas" system. The IMSR Fuel Salt from each spent IMSR Core-unit is partially reused in each replacement IMSR Core-unit with the excess fuel salt removed and stored in a spent fuel vault within the plant nuclear containment until decommissioning of the IMSR Plant. Furthermore, each spent IMSR Core-unit, emptied of IMSR Fuel Salt, is removed to a separate and secure IMSR Core-unit Storage Silo within the reactor building, where it will remain for the life of the plant. As a result of the IMSR Plant's spent fuel management process, we do not anticipate the plant requires a separate licensed facility for the interim storage of spent nuclear fuel required by some of our competitors. Nevertheless, IMSR Plant operations and the related supply chain inherently involve the use, transportation, and disposal of toxic, hazardous and radioactive materials.

The risks of our IMSR Plant and its design features for safe operation were the subject of the CNSC's formal and programmatic VDR process from 2016 to 2023. The scope of the VDR covered design, operation and decommissioning of the IMSR Plant. At the conclusion the CNSC VDR process, the CNSC stated that IMSR Plant design demonstrated compliance with Canadian safety codes and standards and there were no "fundamental barriers" to licensing. The CNSC defines a fundamental barrier as "a failure to address known issues of safety significance or the use of unproven engineering practices for new or innovative design features (i.e., not adequately supported by analysis, research and development, or both)".

We anticipate supplying the IMSR Plant design for construction, the IMSR Core-unit and IMSR Fuel Salt as well as O&M services. We expect to have contractual provisions to limit liability to breaches in contracted performance of our IMSR design, components and services. Although we will not be the owner and operator of an IMSR Plant, we believe the risks from incidents during the operation of a licensing nuclear plant are insurable and furthermore they are underwritten by the Price-Anderson Act, which generally establishes a no-fault insurance-type system in which the first approximately $15 billion is industry-funded as provided for under such Act. See "Risk Factors — Risks Related to Our Business and Industry — The IMSR Plant involves toxic, hazardous and/or radioactive materials and could result in liability without regard to fault or negligence."

Research, Development and Testing

Our reactor design process is supported by a comprehensive research and development (R&D) program that works collaboratively with our design teams to integrate rigorous nuclear systems testing, iterative design refinement, and regulatory safety analysis. Our R&D program, which was reviewed by the CNSC as part of its VDR of the IMSR Plant, spans critical technical areas including reactor materials' qualification, neutronic and thermal-hydraulic systems' design and testing, and plant instrumentation. Our rigorous computer code validation & verification program of major reactor systems, leveraging the availability of U.S. DOE funding, supports these efforts to verify our neutronics and thermal-hydraulics simulation models against experimental and reference data. We believe that this R&D integrated design process will reduce time-to-market, achieve regulatory compliance, and provide the technical foundation defining IMSR Plant performance.

In August 2025, our "TETRA" proposal was selected by DOE Office of Nuclear Energy for its Advanced Reactor Pilot Program for Accelerated Development, which targets first criticality by July 2026. This program was established as part of President Trump's Executive Order 14301 in May, creating a new DOE pathway to fast-track commercial licensing activities for small and modular nuclear plants that use advanced reactor technologies, expediting their broad deployment. TETRA purpose and scope is part of our program to prepare for commercial licensing applications. These applications require that neutronic reactor models, including our neutronic model for the IMSR are verified with reference data collected from a small scale "pilot" reactor and in a manner compliant with NRC requirements for a future commercial operating license application.

We believe our TETRA pilot reactor was selected as it was a direct product of our R&D integrated design process that since its creation in 2013 also integrates the licensing requirements for IMSR plant operation as well as the capabilities of our IMSR plant supply chain; the former has been deeply informed by our regulatory experiences with the CNSC and the USNRC. In addition, our TETRA pilot reactor's target criticality-date benefits from our use of SALEU and the availability of its reactor fuel, as well as the DOE's willingness to expedite TETRA's licensed operation using its existing statutory authority, an alternative to the USNRC's process.

Our testing strategy involves relationships with laboratory facilities that possess the necessary quality assurance programs, technical capabilities, and qualified personnel. We have cultivated these strategic relationships across a network of facilities spanning North America, Western Europe, and Australia. Our North American relationships include three U.S. national laboratories: Argonne National Laboratory (ANL), Idaho National Laboratory (INL) and Pacific Northwest National Laboratory (PNNL), alongside Canada's Canadian Nuclear Laboratory (CNL). In Europe, we collaborate with the UK's National Nuclear Laboratory (NNL), the European Union Joint Research Centre (JRC) including its NRG Pallas facility in the Netherlands. Our international reach extends to the Australian Nuclear Science and Technology Organisation (ANSTO). These relationships are complemented by targeted academic engagements, including with Virginia Polytechnic Institute and State University (Virginia Tech) and Université de Paris, which conduct fundamental research critical to IMSR technological advancement. We are collaborating with Texas A&M University, a leading nuclear engineering and technology university in the U.S., on a proposed IMSR Plant project at the RELLIS campus in Bryan, Texas. We have also integrated specialized private sector expertise through partnerships with KSB in Germany for pump technology and Heat Transfer Research, Inc. (HTRI) in the U.S. for heat exchanger and thermohydraulic test loop design. These R&D and testing relationships provide or have provided contracted R&D and testing services with defined scopes of work to us as part of our normal course business activities to develop the IMSR Plant design to license, construct and commercial operation at fleet scale. Grant awards from the U.S. DOE, Canadian Federal Government, and UK Government have assisted us with our testing and development activities with these diverse organizations.

Each of our R&D and testing counterparties must be "accredited" and comply with our Quality Assurance program required for regulatory compliance before the start of R&D and testing activities. These "accredited" and collaborative R&D and testing relationships under agreed scopes of work intend to demonstrate safe operation of IMSR systems and components, a process referred to as "verification & validation" and "qualification." In parallel, our R&D relationships have supported critical graphite irradiation tests conducted at the High Flux Reactor in Petten, Netherlands. The first phase of this program has yielded a substantial volume of essential data that demonstrate the performance of our preferred graphite grades at high temperatures under irradiation. R&D activities also encompass testing, optimization, and scale-up of ANSTO's liquid fuel stabilization and encapsulation "Synroc®" technology. Synroc is recognized in the nuclear industry as an alternative to vitrification for the management of waste nuclear material. We believe our activities with ANSTO have demonstrated Synroc® to be a robust and safe solution for the management of spent IMSR Fuel Salt and its long-term storage. Parallel advancements have been achieved in the design of neutronics and thermalhydraulic test rigs, and the design of key nuclear components — including primary pumps and primary heat exchangers in the IMSR Core-unit. These efforts build upon our design expertise in IMSR technology that commenced in 2013 and are complemented by our understanding of regulatory requirements to demonstrate validation & verification and qualification.

IMSR Technology

The IMSR is a design of MSR that operates in the thermal neutron spectrum achieved by a graphite moderator with a fluoride salt eutectic operating as the reactor's nuclear fuel and its primary coolant. A MSR is defined by its use of a molten salt — a fluid with high thermal stability that acts as both the reactor fuel and primary coolant — operating in a low-pressure cooling system. As such, this is a major departure from legacy nuclear technology, which is characterized by solid fuel cooled with high-temperature water, a thermally unstable fluid, which necessitates a highly pressurized active cooling system and almost universally by forced coolant flow from pump action. We believe that these and other clear and distinct operational differences articulated in this document offer considerable potential for the IMSR Plant to improve safety, economic efficiency, flexibility, and overall commercial value compared to nuclear plants built with legacy nuclear technology and other Gen IV technologies.

We believe that our IMSR Plant can achieve a competitive position in commercial markets due to the distinct characteristics of MSR technology and our application of it within the IMSR Plant design. Our IMSR Plant has the following operating characteristics that we believe may be fundamental to addressing certain economic challenges associated with legacy and other Gen IV nuclear technologies, such as high-temperature gas reactors (HTR) and sodium fast reactors (SFR). While high-temperature and low-pressure operation with high inherent safety is characteristic of MSR technology, our IMSR Plant collectively expresses the five characteristics of a small and modular nuclear plant that we believe are essential for commercial success. These five characteristics differentiate the IMSR Plant from nuclear plant using legacy technology as well as other Gen IV nuclear technologies. Additionally, as discussed previously, our IMSR Plant uses readily obtained SALEU fuel instead of HALEU. Figure 4 below sets out the connection between these characteristics and the levelized cost of electricity.

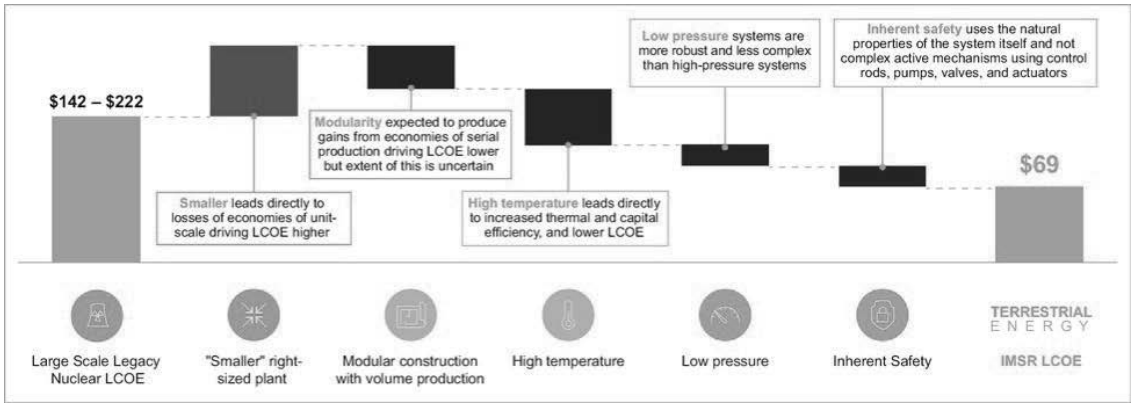


Figure 4: Waterfall chart of LCOE (USD per MWh) and IMSR operating characteristics

High-temperature operation. The IMSR Core-unit operates at ~700 °C, which facilitates the IMSR Plant's thermal energy supply temperature for commercial use of 585 °C. As a result of this high-temperature reactor operation and energy supply, we have calculated the IMSR Plant's steam turbines to be approximately 44% (net) thermal efficiency for electricity generation, substantially higher than the approximately 30% (net) efficiency typical of steam turbines driven by a SMR using legacy nuclear technology. Holding all other variables constant, we have calculated that this increased thermal efficiency will lead to a proportionally lower (~32% reduction) in the levelized cost of electricity supplied.

Low-pressure operation. Unlike legacy nuclear technology and some Gen IV nuclear technologies, which require a primary cooling system pressurized to 60-170 atmospheres, the IMSR's primary cooling system operates at near atmospheric pressure. We believe that as a result of avoiding the regulatory safety requirements and engineering complexity of high-pressure operation, the IMSR may allow for simplified containment and systems, which has the potential to reduce manufacturing, construction complexity and cost in U.S., North American and other markets.

Inherent safety in operation. The IMSR's use of a thermally stable coolant, which is also the nuclear fuel, has inherent performance characteristics that we believe to be advantageous. For example: (i) low-pressure reactor operation enabled by the use of a thermally stable coolant avoids the hazards of high-pressure reactor operation; (ii) the IMSR Fuel Salt dissipates fission heat through a process of convective fluid flow of the fuel, which is not an inherent operating attribute of legacy nuclear technology, this uses a solid fuel; (iii) our primary means of reactor power control is inherent and facilitated by the IMSR's strong negative temperature-of-reactivity, rather than with active mechanisms such as mechanical control rods; and, finally (iv) many of the radioactive products and by-products of the IMSR's nuclear fission process are captured and contained by the IMSR Fuel Salt via strong ionic chemical bonding. These mechanisms, which are highly relevant to IMSR safety, are inherent properties of our reactor's systems and distinct from the mechanisms of reactor safety used in plants built with legacy and many Gen IV nuclear technologies, which typically involve engineered active safety systems. We believe that economic advantage can be gained from inherent safety.

IMSR innovation

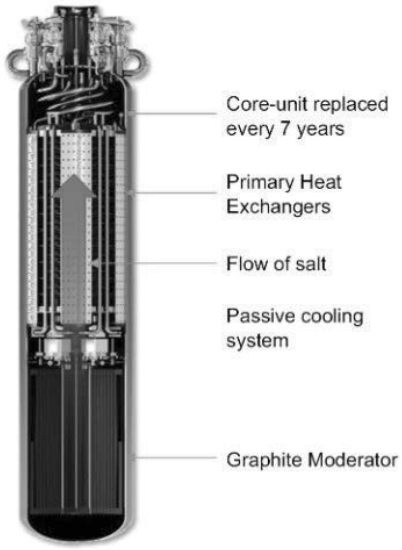
The technological centerpiece of the IMSR Plant is its proprietary IMSR Core-unit. This is a sealed, replaceable reactor vessel that encapsulates all primary reactor systems. Each Core-unit contains the IMSR Fuel Salt, graphite moderator, primary heat exchangers, primary pumps, and other systems.

The IMSR Core-unit leverages MSR technology first developed over many decades, starting in 1950s and 1960s, by the U.S. Department of Energy's Oak Ridge National Laboratory ("ORNL"), resulting in the benchmark Molten Salt Reactor Experiment ("MSRE"), a prototype MSR that operated successfully for over 13,000 hours. Subsequent innovations to the MSRE include the Denatured Molten Salt Reactor ("DMSR") design in 1980 and the Sm-AHTR high-temperature reactor in 2010. These later designs introduced important advancements such as a once-through fuel cycles using SALEU and cartridge-based core architecture, further enhancing safety and proliferation resistance.

A key challenge to early MSR commercialization efforts was limited lifetime of components in the reactor core, which is exacerbated at the reactor power densities required for a commercial reactor. Such high-power densities significantly reduce the lifetime of components and particularly the graphite moderator, requiring periodic replacement; this has the potential to create significant maintenance challenges that must be overcome for industrial use of MSR technology.

We believe our proprietary innovation — the IMSR Core-unit — addresses this maintenance challenge. The IMSR Core-unit innovation is the integration of the primary reactor components (the graphite moderator, primary pumps, primary heat exchangers, and other components) into a sealed and replaceable reactor vessel; see Figure 5. During operating each IMSR Core-unit is housed its Operating Silo and after use a Storage Silo.

This replaceable IMSR Core-unit is designed to mitigate the limited lifetimes of reactor components with a "plug-and-play" component replacement process that operates every seven years and involves the installation of a replacement IMSR Core-unit. We expect the IMSR Core-unit innovation to streamline maintenance, support operational efficiency, and confer potential safety benefits.



All primary reactor components will be contained in the sealed and replaceable "Core-unit"

Key innovation is integration of all primary reactor components into a sealed, compact and replaceable reactor vessel designed to have a 7-year operating life:
- Reactor graphite core
- Primary heat exchanger
- Pumps

This "integral" design captures commercial value through:
- Maintenance simplicity of "plug-and-play"
- High capital efficiency

IMSR Plant has defensible IP
- 90 patents pending or granted across 6 invention families

Figure 5: Illustrative rendering of the IMSR Core-unit innovation to facilitate efficient MSR maintenance. Actual Core-units design, characteristics and appearance may vary materially.

The IMSR Core-unit is designed to be fabricated in a quality-controlled factory-based manufacturing environment and transported to IMSR Plant site for installation in its standardized operating silo. At the end of each seven-year cycle, the now-spent IMSR Core-unit is replaced with a new one. IMSR Fuel Salt from each spent IMSR Core-unit is partially reused in the subsequent IMSR Core-unit and the remainder is removed and stored in a spent fuel vault inside the plant's nuclear containment structure until decommissioning of the IMSR Plant. Each spent IMSR Core-unit, emptied of IMSR Fuel Salt, is stored in a separate and secure IMSR Core-unit Storage Silo within the Nuclear Facility, where it will remain until decommissioning of the IMSR Plant.

As a result of the IMSR Plant's distinct operating characteristics, we believe that it will offer improved affordability and cost-competitiveness of nuclear energy supply relative to new nuclear plants built with legacy and other Gen IV nuclear technologies, and in doing so, address the economic obstacles to the deployment of new nuclear plant and the expansion of nuclear supply to meet demand.

Intellectual property

The MSR was invented in the 1950's and its key innovation — the nuclear fuel and coolant combined into single molten salt eutectic — was successfully demonstrated by a graphite moderated thermal spectrum MSR in the 1960s at the U.S. Department of Energy's Oak Ridge National Laboratory and subsequently improved upon. However, the long-standing design challenge to commercialization of a graphite moderated thermal spectrum MSR remained graphite's limited lifetime in the reactor core operating at the high-power densities of commercial power reactor, and the high complexity and challenging safety requirements of maintenance protocols for its replacement along with other primary reactor components during plant operation.

The Company's key MSR innovation, which solves for this maintenance challenge, is the IMSR Core-unit. This component integrates the primary reactor systems (for example the reactor vessel, graphite moderator, primary molten salt pumps and primary heat exchangers) into a swappable and replaceable reactor module. We believe the swappable and replaceable IMSR Core-unit design addresses not only the limited lifetimes of all primary reactor system components, include the graphite moderator, but does so with a simpler and safer maintenance protocol and enables the high reactor power density and high plant capacity factors necessary for capital efficiency and successful commercial use.

Our intellectual property strategy is designed to establish and maintain a defensible portfolio of patents, trademarks, trade secrets, and proprietary know-how related to the IMSR Plant and its key systems and components, including the IMSR Core-unit. This strategy is designed to safeguard our technological leadership and support our business objectives. We seek to protect key innovations through targeted patent filings in jurisdictions primary to our business and regulatory strategy, including the United States, Canada, the European Union, China, and Japan. Our IP protections cover the IMSR Core-unit innovation.

We currently have approximately 90 patents granted or pending across six invention families, of which approximately 84 are granted, 5 pending, and 8 are Patent Cooperation Treaty applications. These patents include both broad and narrow claims that collectively create significant barriers to entry around the IMSR technology, which may discourage or prevent replication of our technology by competitors.

Our patented technology is distinct from MSR technology in the public domain. While we have built on public domain MSR research, other developers are employing public domain MSR technology in different ways, creating different MSR designs. During the tenor of our patents, we believe that these developers will have to find alternative solutions to the operational maintenance challenges from limited materials' lifetimes of MSRs that our IMSR addresses in the jurisdictions where we benefit from that patent protection. We are not presently aware of infringing technologies.

Accordingly, our IMSR technology is proprietary and not available for public use, and we will license it in the course of our operations to the extent commercially necessary to owners and operators of IMSR Plants. We do not license our IMSR technology from third parties; it is our proprietary design.

Our patent families cover innovations such as: the IMSR Core-unit with multiple independent heat exchangers for redundancy and safety in operation; neutron fluence control; pneumatic motor assemblies; a nuclear core design; thermal storage; and method patents. U.S. Patents and descriptions in these extended families are (i) Integral molten salt reactor (US 10056160), (ii) Pneumatic Motor Assembly, Flow Induction System Using Same And Method Of Operating A Pneumatic Motor Assembly (US 2018/0258829), (iii) Molten salt nuclear reactor (US 2014/0023172), (iv) Cooling system for nuclear reactor (US 2022/0375635), (v) Power Plant system (US 11756696), (vi) Molten Salt Nuclear Reactor (US 11,200,991). Filing dates of patents granted or in the process of prosecution range from 2013 to 2023, with and the correlative expiry dates are accordingly 2033 to 2043.

We also generally maintain trade secrets for design and engineering elements where disclosure is not commercially advantageous and regularly evaluate this balance. The trademark “IMSR” is registered in Canada and the UK and used as an unregistered mark in the United States.

Commercialization Pathway

In response to evolving market demand for our IMSR Plant, we have a pipeline of over ten early-stage IMSR Plant projects each at an identified site. We play an active role in the establishment of each project and its member consortium. An IMSR Plant project is established with an initial consortium of members, and each includes one or more of off-takers, site owners, nuclear plant operators, and suppliers expressing interest in the project with MOU and LOI. Our portfolio of early-stage projects covers a range of industrial sectors such as mining, chemical and petrochemical production, data centers, and grid power provision.

Our near-term project milestones include the completion of site characterization work, which is the antecedent to the project’s submission of a USNRC Construction Permit application. We establish a project’s initial consortium by drawing from our portfolio of over 50 collaborative industry relationships, where each such relationship has expressed an interest in our IMSR Plant and has undertaken investigations and due diligence. We expect these collaborative industry relationships to support the growth of our project pipeline with additional IMSR Plant projects. Illustrating this approach to IMSR Plant project development from the formation of its initial consortium, we have announced developments with consortia members and projects over the last 12 months with industrials, suppliers, research partners, and site owners, such with Schneider Electric, Zachry Group, Viaro Energy, Energy Solutions, Texas A&M University and most recently Ameresco. To illustrate further, our Texas A&M project consortium consists of an EPC, a nuclear utility, the site owner, a nuclear fuel supply, and other suppliers.

Our Texas A&M project is a collaboration with Texas A&M University, a leading nuclear engineering and technology university in the U.S., to construct and operate a commercial IMSR Plant at its RELLIS campus in Bryan, Texas, as well as undertake IMSR system R&D testing activities employing the expert resources of the university’s engineering facility. The IMSR Plant project at the RELLIS campus site with an attendant consortium was proposed by Terrestrial Energy following Texas A&M University’s competitive RFP process in the third quarter of 2024. Terrestrial Energy was one of four companies selected by Texas A&M in the fourth quarter of 2024 to collaborate with Texas A&M on SMR projects at the RELLIS campus site. Terrestrial Energy and its project consortium partners intend to pursue licensing, construction, and operation of the IMSR Plant at the RELLIS campus site, subject to regulatory approvals and financing. This plant is intended to supply clean, firm power to the campus and to the ERCOT grid. Our collaboration with Texas A&M University has the potential to accelerate our business plans and aligns with recent policy statements supporting commercialization of advanced nuclear technologies by the Trump Administration, and U.S. Federal and Texas state governments. As noted above, on August 12, 2025, the Company announced that it had been selected for the DOE’s Advanced Reactor Pilot Program, which we believe represents a significant milestone in Terrestrial Energy’s commercialization pathway, leveraging the program’s fast-track approach to advance the licensing and deployment of the Company’s proprietary IMSR technology.

Government support and financing

The IMSR Plant development has benefitted from multiple grant awards totaling approximately $30 million in non-dilutive funding support from the governments of the United States, Canada, and the United Kingdom for licensing, engineering, and fuel supply activities.

The U.S. Department of Energy's Loan Programs Office ("LPO") has accepted a loan guarantee application for up to $890 million to support project financing of an IMSR Plant in the United States. The application included a project plan and supporting technical, regulatory, and financial materials, in accordance with the LPO's review requirements. As of the date of this filing, our application is under review with the LPO.

If approved, the loan guarantee may help reduce project financing risk, enhance investor confidence, and improve project viability. However, acceptance of an application does not imply regulatory approval or project endorsement. Furthermore, no assurance can be given that such funding will be approved or disbursed.

Competition

Our competitors are other electricity and thermal generation technologies, including those used for traditional baseload electricity and industrial thermal power production. They include fossil fuels, renewables such as hydroelectric, wind and solar with storage, and other nuclear technologies. We believe our competitive strengths differentiate us from our competition.

Traditional Baseload. According to the U.S. Energy Information Agency's ("EIA") International Energy Outlook, approximately 83% of global primary energy demand (and approximately 66% of global electricity generation) was forecasted to be met by coal, natural gas, petroleum, and large-scale nuclear in 2025. These technologies are highly reliable, cost-effective, dispatchable and land-use efficient. However, except for traditional large-scale nuclear, these resources are carbon-intensive, and we expect them to largely be replaced with carbon-free generation over time. Traditional large-scale nuclear power plants, while carbon-free, require significant upfront capital expenditures, have a history of extensive construction times, complex safety systems and do not have viable business cases apart from utility-scale generation. We believe our IMSR Plant contain all of the positive attributes of traditional baseload and addresses many of the commercial limitations of legacy nuclear power plants.

Industrial Thermal Power Production. At present there is no viable source of industrial thermal power production other than from the combustion of fossil fuels. Such methods are carbon intensive and subject to the commercial risk of commodity price volatility. We believe our IMSR Plant offers a valuable solution to many customers seeking low-carbon intensity industrial heat production to maintain their businesses.

Renewables. According to the EIA's International Energy Outlook, approximately 17% of global primary energy demand in 2025 was forecasted to come from renewable power generation sources. Although these sources generate carbon-free power, wind and solar are highly intermittent and non-dispatchable, and hydroelectric is often seasonal and subject to curtailment. Additionally, since renewables are weather-dependent, they are too unreliable to support certain end-use cases, including mission-critical applications or industrial applications that require extensive on-site, always-available power.

Legacy Nuclear Technology. Legacy nuclear power plants face fundamental economic and technical constraints that limit their competitiveness in the current and future energy landscape. These plants are characterized by high capital costs, prolonged construction timelines, and low thermal and by extension capital efficiency, often resulting in levelized costs of electricity that are uncompetitive without significant public subsidy. As a result, we believe that new projects based on legacy nuclear technology are unlikely to be commercially viable on a standalone basis and are poorly suited to meet modern demands for distributed, flexible, and cost-effective clean energy.

Other Advanced Nuclear Reactors. There are a number of reactor technologies that are in various stages of development, such as high temperature gas reactors, sodium fast reactors, molten salt reactors, fusion technologies and others. These technologies, like ours, are designed to be clean, safe and highly reliable. However, the commercial operation of plant with these technologies has not received regulatory approval in the United States, and many of the technologies have not been commercially demonstrated nor have commercial scale fuel supply infrastructure.

Facilities

We have offices in Charlotte, North Carolina and Oakville, Ontario. Our office in Charlotte is our corporate headquarters and consists of office space for our executives and to expand our U.S. engineering, operations, sales and corporate functions. We expect our office in Oakville will continue to provide engineering and R&D support as well as expertise relevant for developing Canada IMSR Plant projects.

Export Controls

Our business is or will be subject to, and complies with or will comply with, U.S. and Canadian nuclear export and import control regimes. We are required to comply with stringent regulations administered by the DOE, the USNRC, the Bureau of Industry and Security within the U.S. Department of Commerce ("BIS"), and the CNSC. These regulations are designed to protect national security, advance foreign policy and non-proliferation objectives, and control the transfer of nuclear-related materials, technology, and services.

Under DOE regulations at 10 C.F.R. Part 810, the export of certain nuclear-related technology and the provision of technical assistance by U.S. persons to foreign nuclear programs require prior authorization or reporting. These controls apply to a broad range of technical exchanges and commercial activities, including design, engineering, consulting, and training services associated with nuclear reactor technology. Not all exports require a license; for example, exports of Part 810-controlled technology to Canada are only subject to reporting requirements.

The USNRC regulates the physical export and import of nuclear materials and equipment under 10 C.F.R. Part 110, including reactor components, source and special nuclear material, and related commodities. Exports may require specific licenses depending on the destination country and nature of the item; exports of major nuclear equipment and nuclear material from the U.S. also require there to be a bilateral nuclear cooperation agreement (known as a "123 Agreement") between the United States and the end-user country before the export license can be granted. As of July 11, 2025, the United States has twenty-five (25) 123 Agreements in force. These agreements cover 48 countries, as well as the IAEA and Taiwan. All of our current markets are covered by Section 123 Agreements. Further, exports of minor reactor items are subject to a general license and don't require advance approval from the USNRC.

The BIS, through its Export Administration Regulations ("EAR"), oversees the export of "dual-use" items — goods and technologies that have both civilian and military or strategic applications. Certain components, software, and supporting technologies related to nuclear operations may fall under EAR controls depending on their classification and end use. Exports of IMSR items subject to the EAR generally don't require a license from the BIS.

In Canada, the CNSC administers export and import licenses under the Nuclear Non-Proliferation Import and Export Control Regulations ('NNIECR"). These regulations control the cross-border transfer of nuclear and nuclear-related dual-use items, including reactor technologies, fuel cycle components, and technical data. Exports from Canada may require CNSC authorization if destined for countries outside of Canada, including the United States, depending on the item and its strategic classification. Licenses are typically issued within 15 business days.

Collectively, these export and import control frameworks impose compliance obligations on our business operations. The U.S. government agencies responsible for administering the nuclear export control regulations have a degree of discretion interpreting and enforcing these regulations. These agencies also have significant discretion in approving, denying, or instituting specific conditions regarding authorizations to engage in controlled activities. However, as noted above, many of the exports related to the IMSR in our target market will not require specific licenses.

We have IMSR technology and proprietary technology information that was developed and is owned by our Canadian subsidiary; this information is subject to CNSC export control of nuclear technology. It includes elements of the IMSR Plant design that was submitted to the CNSC for its VDR of the IMSR Plant. We have obtained requisite export licenses when required from the CNSC to export this technology including its export to our U.S.-domesticated company. We anticipate that our U.S. operation will provide a substantial part of the remaining engineering work to complete of the IMSR design for U.S. and export market deployment. We have also reported to the DOE the export of nuclear technology to our Canadian operations, which was generated from our U.S. activities and engagements with U.S. laboratories for R&D and testing of IMSR nuclear systems.

Collectively, these export and import control frameworks impose extensive compliance obligations on our business operations. As we pursue international commercial opportunities for our IMSR Plant and engage with cross-border development partners, we will continue to maintain internal policies and compliance mechanisms designed to ensure adherence to all applicable regulatory requirements. Our ability to obtain and maintain the necessary authorizations from the DOE, USNRC, CNSC, and other regulatory bodies may impact the timing and scope of our commercialization efforts in various jurisdictions.

Human Capital

As of December 31, 2025, we were headquartered in Charlotte, North Carolina and employed 74 full-time employees. The Company has a seasoned leadership team with extensive experience in the nuclear industry and adjacent industries. In managing our team, we focus on employee recruitment, retention, developing a pipeline of talent, and tracking progress against our performance objectives.

Available Information

We were originally a special purpose acquisition company incorporated on April 4, 2024, as a Cayman Islands exempted corporation whose business purpose was to effect a merger, capital stock exchange, asset acquisition, stock purchase, reorganization, or similar business combination with one or more businesses. On October 23, 2025, we domesticated into a Delaware corporation and changed our name to “Terrestrial Energy Inc.” Our principal executive office is located at 2730 W. Tyvola Road, Suite 100, Charlotte, NC 28217. Our telephone number is (646) 687-8212. Our website address is *https://www.terrestrialenergy.com/*. Information contained on our website is not a part of this Form 10-K, and the inclusion of our website address in this Form 10-K is an inactive textual reference only. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, including exhibits, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 are available free of charge through the investor relations page of our Internet website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the U.S. Securities and Exchange Commission (the “SEC”). Our Internet website and the information contained therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K.

ITEM 1A. RISK FACTORS

An investment in our securities involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information contained in this Annual Report on Form 10-K, before deciding to invest in our securities. If any of the following events occur, our business, financial condition and operating results may be materially adversely affected. In that event, the trading price of our securities could decline, and you could lose all or part of your investment. References to past events are provided by way of example only and are not intended to be a complete listing or a representation as to whether or not such factors have occurred in the past or their likelihood of occurring in the future. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business or results of operations.

Risk Factors Summary

- Our limited commercial operating history makes it difficult to evaluate our prospects, the risks and challenges we may encounter and our total potential addressable market.
- Any delays in the development and construction of our IMSR plants and the manufacturing of their key components may adversely impact our business and financial condition.
- If we fail to manage our growth effectively, we may be unable to execute our business plan, and our business, results of operations, and financial condition could be harmed.
- Any failure to effectively update the design, construction, and operations of our planned IMSR Plants to ensure cost competitiveness could reduce the marketability of our designs and has the potential to impact deployment schedules.
- Successful commercialization of new, or further enhancements to existing, alternative low-carbon energy generation technologies may adversely affect the market demand for our IMSR Plants.
- If demand for our IMSR Plants fails to develop sufficiently, our business and operations could suffer, and we would be unable to achieve or maintain profitability.
- Our IMSR Plant design may not attract customers as quickly as we expect, or at all.
- Customers may rescind or back out of non-binding agreements due to various reasons, which could adversely affect our revenue streams, project timelines, and overall financial performance.
- Our cost estimates are sensitive to broader economic factors, and our ability to control or manage our costs may be limited.
- Competition from existing or new competitors or technologies domestically and internationally could cause us to experience one or more of downward pressures on prices, lower customer demand for our products and services, reduced margins, the inability to take advantage of new business opportunities and the loss of market share.
- Changes in the availability and cost of electricity, natural gas, oil and other forms of energy are subject to volatile market conditions that could adversely affect our business prospects, financial condition, results of operations and cash flows.
- The potential disruption of uranium supply chains makes long-range planning uncertain.
- The cost of electricity and heat generated from nuclear sources may not be cost competitive with other electricity generation sources and/or heat generated from other sources in some markets, which could materially and adversely affect our business prospects, financial condition, results of operations and cash flow.
- Our illustrative unit economics are subject to significant risks, assumptions, estimates, and uncertainties. As a result, our actual revenues, timing for achieving business milestones, expenses, capital expenditures, profitability and cash flows may differ materially from our expectations.
- The IMSR plants may not operate as planned.
- We and our customers operate in a politically sensitive environment, and the public perception of nuclear energy and radioactive materials could materially and adversely affect us, our customers, and the markets in which we operate.

- Incidents involving nuclear energy facilities, including accidents, terrorist acts or other high-profile events involving radioactive materials, could materially and adversely affect the public perception of the safety of nuclear energy and adversely affect our business.

- The direct and indirect impact on us and our customers from severe weather and other effects of climate change and the economic impacts of the transition to low-emissions energy, could adversely affect our financial condition, operating results, and cash flows.

- The occurrence of adverse events, cancellations of significant projects, delays in project timelines, adjustments in cost structures, and other negative developments announced by competitors could have an impact on our operations, financial performance, and future prospects.

- The IMSR Plant involves toxic, hazardous and/or radioactive materials and could result in liability without regard to fault or negligence.

- Unsatisfactory safety performance or security incidents at our customers' facilities — or any nuclear facility around the world — could have a material adverse effect on our business, financial condition and results of operations.

- We are subject to information technology and cyber security threats which could have adverse effects, including regulatory effects, on our business and results of operations.

- We and our third-party vendors may not be able to obtain sufficient materials or supplied components to meet our manufacturing and operating needs, or obtain such materials on favorable terms or at expected costs.

- Our failure to successfully recruit and retain experienced and qualified personnel could have a material adverse effect on our business.

- Our ability to protect our patents and other intellectual property rights may be challenged and is not guaranteed.

- We currently enjoy only limited geographical protection with respect to certain issued patents and trademarks and may not be able to protect our intellectual property rights throughout the world.

- We may need to defend ourselves against intellectual property infringement claims, which may be time-consuming and could cause us to incur substantial fees and costs.

- We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent, which might adversely affect our ability to develop and market our IMSR Plants.

- We may be subject to claims of ownership and other rights to our patents and other intellectual property by third parties.

- Customization and hybridization of the Thermal and Electric Facility may require additional research and development and/or reliance on external service providers.

- Some of our management team have limited experience in operating a public company.

- Compliance with the reporting obligations under the United States securities laws and Section 404 of Sarbanes-Oxley requires expenditures of capital and other resources and may divert management's attention. If we fail to comply with these reporting obligations or to maintain adequate internal controls our operations, and investors' confidence in us, could be materially and adversely affected.

- Risks related to compliance with law, government regulation and litigation.

- Risks related to our capital resources and our ability to continue as a going concern, and risks related to tax laws and regulations.
- Risks related to the volatility of our common stock, and provisions in our certificate of incorporation and bylaws.
- Risks as an emerging growth company.

Risks Related to Our Business and Industry

We have not yet constructed an IMSR Plant, nor have we entered into any binding contract with any customer, including any of our current portfolio of project consortium partners, to operate an IMSR Plant or deliver electricity or heat, and there is no guarantee that we will be able to do so in the future. Our limited commercial operating history makes it difficult to evaluate our prospects, the risks and challenges we may encounter and our total potential addressable market.

Our business plan includes entering into arrangements with customers, which we also refer to as project consortium partners (including builder-operators, offtake customers, suppliers as well as public and private project investors), who will construct and operate IMSR Plants. Our ability to execute on our business plan will be subject to reaching binding agreements with potential customers for electricity or heat delivered by our IMSR Plant. If no potential near-term customer enters into such binding agreements, our planned construction and operation of our IMSR Plants could be significantly delayed. Such delays would result in delays in revenue and could hinder our ability to gain market traction with other potential customers. This could have a material adverse effect on our business and financial condition. To date, we have entered into contingent non-binding letters of intent to cooperate with potential customers to identify sites and land-use requirements for IMSR Plant licensing and construction, which may not result in binding agreements for the purchase of our products or services. We have been selected to site an IMSR Plant at the Texas A&M-RELLIS campus, subject to successful site characterization studies, governing body approvals and regulatory approvals. As a result of our limited commercial operating history and ongoing changes in our new and evolving industry, including evolving demand for our products and services and the potential development of technologies that may prove more efficient or effective for our intended use cases, our ability to forecast our future results of operations and plan for and model future growth is limited and subject to a number of uncertainties. Therefore, there can be no assurance that our internal estimates relating to the size of our serviceable addressable market will be correct. In addition, our expectations with respect to our serviceable addressable market may differ from those of third parties, including investors or securities analysts.

Any delays in the development and construction of our IMSR plants and the manufacturing of their key components due to a number of factors, including the degree of pre-fabrication, standardization, on-site construction, long-lead procurement, contractor performance, plant pre-operational and startup testing and other site-specific considerations may adversely impact our business and financial condition.

The success of our business will depend in large part on our ability to successfully deliver the IMSR plant to customers on-time and on-budget at specified performance levels. There is no guarantee that our planned deployments of the IMSR plant will be successful, timely, or on budget. There can be no assurance that we will not experience operational or process failures and other problems during our first commercial deployment or any planned deployment thereafter.

In the future, we may experience delays, cost overruns or other complications in the design, manufacture, production and delivery of the IMSR plant and its key components, such as the IMSR Core-unit and IMSR Fuel Salt, that could prevent us from delivering IMSR plants in 2034 or beyond. We have not updated third-party cost estimates related to building our IMSR plants since 2021 and the cost environment may have adversely changed since such preliminary third-party cost estimates were obtained. Such third-party cost estimates may be significantly higher than our current estimates, which affect the marketability, capital and operational costs of our IMSR plants and our expectations with respect to our business plan and future profitability. The effect of such complications may be increased as a result of rising commodity prices and interest rates, which may increase costs to us and to our customers and may adversely affect the competitiveness of our IMSR plants compared to more established, competing means of supplying electricity or heat. If delays like this occur, we could experience issues or delays in sustaining or further increasing production and sales of IMSR plants. Similarly, we do not yet have binding commitments with any customers for the purchase of our IMSR Core-unit or IMSR Fuel Salt, and if we are unable to competitively price these components as a result of increased costs or delays in their production or otherwise, we may not realize the expected revenues associated with supplying our IMSR Plant to our customers, or our customers may need to rely on third-parties to provide components and fuel for their IMSR plants.

If we encounter difficulties in scaling our production and delivery capabilities, if we fail to develop and successfully commercialize our IMSR plants and related technologies, if we fail to timely develop such technologies before our competitors or if such technologies fail to perform as expected, are inferior to those of our competitors or are perceived as less safe or less efficient than those of our competitors, our business and financial condition could be materially and adversely impacted.

Our limited commercial operating history in a rapidly evolving industry makes it difficult for us to evaluate our future prospects and prepare for the risks and challenges we may encounter.

We have a limited commercial operating history in a rapidly evolving industry. The markets for nuclear reactor design, nuclear reactor production, nuclear fuel design, nuclear fuel supply, and services related to any or all of the foregoing business may not continue to develop in a manner that we expect or that otherwise would be favorable to our business. As a result of our limited operating history and ongoing changes in our new and evolving industry, including evolving demand for our products and services and the potential development of technologies that may prove more efficient or effective for our intended use cases, our ability to forecast our future results of operations and plan for and model future growth is limited and subject to a number of uncertainties. We have encountered and expect to continue to encounter risks and uncertainties frequently experienced by growing companies in rapidly evolving industries, such as the risks and uncertainties described in this annual report. Accordingly, should we provide forecasts in the future, we may be unable to prepare accurate internal financial forecasts or replace anticipated revenue that we do not receive as a result of delays, changed circumstances, or changed market conditions arising from these factors, and our results of operations in future reporting periods may be below the expectations of investors or analysts. If we do not address these risks successfully, our results of operations could differ materially from our estimates and forecasts or the expectations of investors or analysts, causing our business to suffer and our common stock price to decline.

If we fail to manage our growth effectively, we may be unable to execute our business plan, and our business, results of operations, and financial condition could be harmed.

In order to achieve the future revenue growth anticipated, we must finalize our IMSR Plant design, receive regulatory approvals, including the USNRC and other regulatory bodies licensing our IMSR Plants, design, construct and license facilities to manufacture and produce IMSR Core-units and IMSR Fuel Salt, and continue to develop and market new products and services to traditional and non-traditional end-users. If our operations grow as planned, we intend to expand our operations significantly to meet anticipated demand. To properly manage our growth, we will need to hire and retain additional personnel, upgrade our existing operational management and financial and reporting systems, and improve our business processes and controls. Our future expansion will include:

- hiring and training new personnel;
- completing the designs and licensing of our first IMSR Plant;

- customizing applications of our IMSR Plants to serve both traditional utility and electric power customers and a broad base of non-traditional industrial customers interested in utilizing the efficient high-temperature heat produced by our design;
- developing the supply chain necessary to supply components for our IMSR Plant;
- developing the processes and technologies to transport radiological materials;
- developing IMSR Fuel Salt production capabilities and capacity to transport and deliver IMSR Fuel Salt, including the ability to purchase SALEU UF4 and the other elements of the IMSR Fuel Salt;
- developing the operational capabilities and functions necessary for others to operate our IMSR Plant;
- controlling expenses and investments in anticipation of expanded operations and rising costs;
- upgrading the existing operational management and financial reporting systems and team to comply with requirements as a public company; and
- implementing and enhancing administrative infrastructure, systems and processes.

If our operations continue to grow as planned, of which there can be no assurance, we will need to expand our sales and marketing, research and development, customer and commercial strategy, permitting and licensing, products and services, manufacturing, supply, and operations functions. These efforts will require us to invest significant financial and other resources, including in industries and sales channels in which we have limited experience to date. We will also need to continue to leverage our manufacturing and operational systems and processes, and there is no guarantee that we will be able to scale the business as currently planned or within the planned timeframe. The continued expansion of our business may also require additional manufacturing and operational facilities, as well as space for administrative support, and there is no guarantee that we will be able to find suitable locations for such facilities.

Our continued growth could increase the strain on our resources, and we could experience operating difficulties, including difficulties in hiring and training employees, finding manufacturing capacity to produce our IMSR Plants and related equipment, delays in production, finding suitable locations or partners for our IMSR plants, challenges in scaling-up IMSR Fuel Salt and IMSR Core-unit production capacity and supply, and difficulty sourcing adequate raw materials for our IMSR Plants. These difficulties may divert the attention of management and key employees and impact financial and operational results. If we are unable to drive commensurate growth, these costs, which include lease commitments, headcount and capital assets, could result in decreased margins, which could have a material adverse effect on our business, financial condition and results of operations.

IMSR Plants may suffer significant construction delays or cost increases as a result of a variety of factors. Any such delays could cause the construction of a project to ultimately be unprofitable for the Company or otherwise adversely affect the Company's business, financial condition and results of operations.

Our IMSR Plant design development will be actively managed through design reviews, prototyping of key systems, involvement of external partners and application of industry lessons, but we could still fail to identify latent manufacturing and construction issues early enough to avoid negative effects on construction or ultimate performance of our IMSR Plants.

While the Company anticipates improved cost efficiency as it gains further experience in delivering IMSR Plants, there may be delays or unexpected developments at such later stages of completing projects, which could cause construction costs to exceed the Company's expectations as a result of a variety of factors, including but not limited to:

- failure to secure and maintain environmental and other permits or regulatory approvals;

- failure to complete the interconnection to transmission networks;
- changes in local or municipal support for the project;
- unexpected problems with EPC contractor or supplier solvency;
- appeals of environmental and other permits or approvals that the Company obtains;
- changes in the regulatory regime applicable to the construction of the project;
- failure to obtain required financing;
- increases in interest rates;
- failure to obtain all necessary rights to land access and use;
- failure to receive critical components and equipment that meet design specifications;
- delays in scheduled deliveries of critical components and equipment;
- failure to receive quality and timely performance from key contractors and vendors;
- increases in supplier costs, including those due to unexpected increases in inflation, currency exchange rates, tariffs, or commodity prices;
- unforeseen engineering problems;
- failure by third parties to timely construct facilities that will be used by the Company under co-tenancy arrangements;
- work stoppages, strikes, labor underperformance or shortages of skilled labor;
- inclement weather conditions;
- adverse environmental and geological conditions; and
- force majeure or other events beyond the Company's control, including changes in law or in political support.

Any failure to effectively update the design, construction, and operations of our planned IMSR Plants to ensure cost competitiveness could reduce the marketability of our designs and has the potential to impact deployment schedules.

Updating our designs, construction models, and operation models will be necessary to be competitive and attractive in the market, particularly in the United States where the price of power is generally lower than in certain other key markets. If we are not able to achieve and maintain cost-competitiveness of our IMSR Fuel Salt or our planned IMSR Plants in the United States or elsewhere, our business could be materially and adversely affected.

Successful commercialization of new, or further enhancements to existing, alternative low-carbon energy generation technologies, such as adding carbon capture and sequestration/storage mechanisms to fossil fuel power plants, wind, solar, geothermal or fusion, may prove to be more cost effective or appealing to the global energy markets and therefore may adversely affect the market demand for our IMSR Plants, potentially adversely affecting our ability to successfully commercialize our IMSR Plants.

The expected market for our IMSR Plant generating electric power and high-temperature heat may be superseded or rendered obsolete by new technology or the novel application of existing technologies. Our estimates for the serviceable addressable market and our expectations, inclusive of recent updates, with regards to certain unit economics are based on a number of internal and third-party estimates, including our potential contracted revenue, the number of potential customers who have expressed interest in our IMSR Plant, assumed prices and production and regulatory costs for our IMSR Plant, our ability to leverage our current logistical and operational processes, assumptions regarding our technology and general market conditions. However, our assumptions and the data underlying our estimates may not be correct and the conditions supporting our assumptions or estimates may change at any time, reducing the predictive accuracy of these underlying factors. As a result, our expected performance, our estimates of the serviceable addressable market for our products and services, as well as the expected growth rate for the serviceable addressable market for our products and services, may prove to be incorrect. Any material change to our assumptions or expectations with respect to the foregoing may have a material adverse effect on our business prospects, financial condition, results of operations and cash flows and could harm our reputation.

If demand for our IMSR Plants fails to develop sufficiently, our business and operations could suffer, and we would be unable to achieve or maintain profitability.

The viability and continued growth in demand for new nuclear technologies, and in turn, our IMSR Plant, may be impacted by many factors outside of our control, including:

- market acceptance of nuclear energy;
- cost competitiveness, reliability and performance of our IMSR Plants compared to conventional and renewable energy sources and products;
- the extent to which the nuclear power industry and broader energy industries are deregulated to permit quicker and broader adoption of nuclear electricity generation;
- the cost and availability of skilled labor, key materials and components used in the production of our IMSR Plants;
- prices of traditional utility-provided energy sources; and
- the emergence, continuance, or success of, or increased government support for, other alternative energy generation technologies and products.

Reduction in energy demand or changes in climate-related policies may change market conditions, reducing our product's competitiveness and affecting our performance. If demand does not grow, our business and operations could suffer, which would have an adverse impact on our ability to grow our business and we could be unable to achieve or maintain profitability.

Our IMSR Plant design may not attract customers as quickly as we expect, or at all.

IMSR and other advanced nuclear technologies are relatively new and unproven and may be more costly than alternatives. Accordingly, adoption of our technology, IMSR Plants or advanced nuclear technologies generally, among our potential customers may progress more slowly than we anticipate, or it may be more expensive to bring potential customers into our pipeline. Any delay or failure to sell IMSR Plants to our customers may have a material and adverse impact on our business and financial condition.

Customers may rescind or back out of non-binding agreements due to various reasons, which could adversely affect our revenue streams, project timelines, and overall financial performance.

We have entered into and may enter into additional non-binding agreements, such as a memorandum of understanding or a letter of interest with customers for the purchase of power or to collaborate on projects. These memoranda of understanding and letters of interest are non-binding and the underlying contracts may not come to fruition as a result of, among other things, changes in business priorities, financial constraints, regulatory changes, force majeure events, failure to obtain necessary approvals, or failure to meet contractual obligations by either party. The termination of these agreements could adversely affect our business. For example, while we expect to enter into agreements with the Texas A&M University System to construct an IMSR Plant at the Texas A&M-RELLIS campus site in accordance with our December 2024 MOU, no assurances can be given as to whether or when we may be able to do so. Additionally, loss of planned customers or projects may negatively impact our reputation and future business prospects.

Our cost estimates are sensitive to broader economic factors, and our ability to control or manage our costs may be limited.

Capital and operating costs for the deployment of our first commercial IMSR Plant may be difficult to project, are inherently variable and are subject to significant change based on a variety of factors, including site specific factors, customer off-take requirements, regulatory oversight, operating agreements, supply chain availability, inflation, cost escalations for first-of-a-kind technologies and other factors. Opportunities for cost reductions with subsequent deployments are similarly uncertain. To the extent cost reductions are not achieved within the expected timeframe or magnitude, the IMSR Plant may not be cost competitive with alternative technologies, which could materially and adversely affect our expected revenues, gross margins and unit economics and levelized cost expectations.

Competition from existing or new competitors or technologies domestically and internationally could cause us to experience one or more of downward pressures on prices, lower customer demand for our products and services, reduced margins, the inability to take advantage of new business opportunities and the loss of market share.

We operate in highly competitive markets and are subject to competition based upon product design, performance, technology, pricing, quality, and services, from competing nuclear suppliers as well as from alternative means of producing electricity and/or heat. There are a number of advanced reactor designs, and advanced reactor projects, under development in the United States. Many of these designs are involved in pre-application review with the USNRC. Our advanced design, projected product design performance, engineering expertise, and quality control have been important factors in our growth; nonetheless other companies providing competing technologies could capture customers or market share from us, which could have a material adverse effect on our business or financial condition.

Moreover, our competitors may develop or adopt technologies that are superior, more efficient, more effective, and/or more attractive to prospective customers compared to our technologies (on a price-to-value basis, operational impact, or otherwise), or may adapt more quickly to leverage new or emerging technologies or meet new or evolving regulatory requirements in our target markets. We will need to anticipate and respond to these changes by enhancing our offerings and/or internal processes in order to maintain our competitive position, but we may not be successful in doing so. In such scenarios, the Company may not be able to commercialize the IMSR Plant.

For sales and/or deployments outside of jurisdictions with highly-developed nuclear regulatory frameworks, some of our foreign competitors currently benefit from, and others may benefit in the future from, permissive regulatory and licensing regimes and/or from protective measures by their home countries where governments are providing financial support, including significant investments in the development of new technologies. Those competitors may have a competitive advantage if they are able to obtain approvals, or if they can demonstrate to potential customers the value and benefits of their products and services, particularly in jurisdictions that have less stringent nuclear regulatory requirements. These competitors may have access to greater sources of funding to develop and commercialize their products than we do, whether as a result of potential competitive advantages or from supportive national governments, and may be able to substantially discount sales costs of nuclear plants in their respective markets. This market environment may result in increased pressures on our pricing and other competitive factors.

Substantial governmental support for competing technologies or their fuel supply may reduce our competitive advantages.

The U.S. government has announced initiatives to support a variety of Generation IV SMR technologies, including our technology and competing technologies. Among other programs, the U.S. Department of Energy has announced programs designed to support the creation of a U.S. supply chain for HALEU. Should the Federal Government seek to preferentially support competing nuclear technologies, we may experience a loss in competitive position in our sector. For example, should the U.S. government provide the substantial funding we believe would be necessary to establish a domestic HALEU supply chain at commercial scale, then the competitive advantage of our choice of SALEU as a fuel for the IMSR Plant would be reduced.

Changes in the availability and cost of electricity, natural gas, oil and other forms of energy are subject to volatile market conditions that could adversely affect our business prospects, financial condition, results of operations and cash flows.

The prices for and availability of electricity, natural gas, oil and other energy resources are subject to volatile market conditions. We do not control these market conditions, which are, moreover, often affected by political and economic factors beyond our control. Decreases in energy prices, or changes in nuclear energy costs relative to other forms of energy, may adversely affect our business. To the extent that these uncertainties cause suppliers and customers to be more cost sensitive or to adjust their business plans and operations, decreased energy prices may have an adverse effect on our business prospects, financial condition results of operations and cash flow.

The potential disruption of uranium supply chains makes long-range planning uncertain.

Our IMSR technology depends on a reliable supply of enriched uranium, and supply restrictions and major cost increases in the international market for natural uranium, uranium enrichment, and/or conversion services could have a material adverse effect on our business, financial condition, and results of operations. Our revenue necessarily is dependent upon, and affected by, the long and short-term availability of uranium, which is subject to significant volatility. The international market for uranium has been and will continue to be affected by numerous factors beyond our control. These factors include the demand for nuclear power, political and economic conditions in uranium producing and consuming countries, uranium production levels and costs of production.

The cost of electricity and heat generated from nuclear sources may not be cost competitive with other electricity generation sources and/or heat generated from other sources in some markets, which could materially and adversely affect our business prospects, financial condition, results of operations and cash flow.

Many U.S. electricity markets price electric energy, heat, capacity, and/or ancillary services on a competitive basis, with market prices subject to substantial fluctuations. Other markets remain heavily regulated by state or local utility regulatory authorities, with power or heat purchase decisions by electric utilities subject to various competitiveness or prudence tests. As a result of competitive pressures, some electricity markets experience low marginal energy and heat prices at certain times due to a combination of subsidized generating resources, competitors with low-cost or no-cost fuel sources, or market-design features that create incentives for certain attributes or deliver revenue in unpredictable ways over time, and we may not be able to compete in these markets unless the benefits of our SALEU-fuel nuclear plant using our advanced technology and business model are sufficiently valued. Even in markets that price reliable capacity on a long-term basis, there is no guarantee that our IMSR Plants will be sufficiently low-cost so as to clear auction-style capacity markets, or to attract customers to sign power purchase agreements with our IMSR Plants on commercially acceptable terms, and, further, clearing in any one (1) year is no guarantee of similar outcome in successive years.

Given the relatively lower electricity prices and higher availability of power in the United States when compared to many international markets, the risk may be greater with respect to business in the United States. Regardless of jurisdiction, however, failure of the cost of electricity and heat generated from our IMSR Plants to be cost competitive with electricity and/or heat generated from other sources, will limit our ability to charge a premium relative to other energy sources, which could materially and adversely affect our business prospects, financial condition, results of operations and cash flows.

Our illustrative unit economics and levelized cost information are subject to significant risks, assumptions, estimates, and uncertainties. As a result, our actual revenues, timing for achieving business milestones, expenses, capital expenditures, profitability and cash flows may differ materially from our expectations.

Our illustrative unit economics and levelized cost information are subject to significant risks, assumptions, estimates and uncertainties. They reflect our then-current views with respect to future events or our future financial performance, were based on assumptions, and involved known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the illustrative unit economics and levelized cost information that we may provide from time to time. We may not actually achieve the plans, expectations or objectives contemplated by our illustrative unit economics and levelized cost information, and the underlying assumptions may prove incorrect. Such deviations may be due to factors outside our control or currently unknown to us. For example, our actual revenues, timing for achieving business milestones, expenses, capital expenditures, profitability and cash flows may differ materially from our expectations. Therefore, undue reliance should not be placed on any such data.

The IMSR plants may not operate as planned.

The success of our business will depend, among other things, on the amount of electricity and heat produced by the IMSR plants we develop. A number of different factors, including plant start-up issues, degradation of our IMSR Core-unit at a faster rate than anticipated, latent defect, design error, operator error, slow response to outages due to underperforming monitoring systems, poor weather conditions and vandalism or theft could adversely affect the amount of nuclear power produced, and thus reduce revenues. Even if our IMSR plants do perform as expected, external factors such as grid connectivity issues may affect their output. Unplanned outages or prolonged downtown for maintenance and repair typically increase operation and maintenance expenses and reduce revenues as a result of diminished output. We do not have current plans to carry insurance coverage for, or employ other risks sharing structures, to mitigate all risks associated with the successful delivery and performance of the IMSR plant.

Any actual or perceived safety or reliability issues may result in significant reputational harm to our businesses, in addition to tort liability and other costs that may arise. Such issues could result in delaying or cancelling planned deployments of IMSR plants, increased regulation, or other systemic consequences. Our inability to meet safety standards or adverse publicity affecting our reputation as a result of accidents or mechanical failures could have a material adverse effect on our business and financial condition.

We and our customers operate in a politically sensitive environment, and the public perception of nuclear energy and radioactive materials could materially and adversely affect us, our customers, and the markets in which we operate.

Successful execution of our business model is dependent upon public support for nuclear power in the United States and other countries. The risks associated with uses of radioactive materials, both in our nuclear facilities and the public perception of those risks, can affect our business. Opposition by third parties can delay or prevent the licensing and construction of new nuclear power facilities and in some cases can limit the operation of nuclear reactors. Adverse public reaction to developments in the use of nuclear power could directly affect our customers and indirectly affect our business. In addition, journalists, trade press, and other third parties, potentially including one or more of the agencies with regulatory jurisdiction over us, may publish statements that negatively affect the public or political perception of us. We may also face adverse public or political perception due to a variety of environmental and social factors, including as relevant standards continue to evolve. Stakeholder and policymaker expectations on such matters are not uniform, and any failure to successfully navigate such expectations may result in various adverse impacts. Adverse public opinion or political perceptions could result in increased regulatory requirements and costs or increase the likelihood that our operations are subject to liabilities and adverse claims, and directly affect our customers and indirectly affect our business. In the past, adverse public reaction, increased regulatory scrutiny and related litigation have contributed to extended licensing and construction periods for new nuclear power facilities, sometimes delaying construction schedules by decades or more, or even shutting down operations at already-constructed nuclear power facilities.

Incidents involving nuclear energy facilities, including accidents, terrorist acts or other high-profile events involving radioactive materials, could materially and adversely affect the public perception of the safety of nuclear energy, and such adverse effects could potentially decrease demand for nuclear energy, increase regulatory requirements and costs, or result in liability or claims that could materially and adversely affect our business.

Successful execution of our business model is dependent upon public support for nuclear power, in general, in the United States and other countries. Any significant incident affecting a nuclear energy facility could materially damage public perception of nuclear power. Similarly, adverse public reaction to such incidents (for example, incidents involving incidents at Three Mile Island, Chernobyl and most recently Fukushima) led to increased public and regulatory scrutiny, which contributed to extended licensing and construction periods for new nuclear power plants, sometimes delaying construction schedules by decades or more or even shutting down operations at already-constructed nuclear power facilities. If a high-visibility or high-consequence nuclear incident, including the loss or mishandling of nuclear materials, or other event, such as a terrorist attack involving a nuclear facility, occurs, public opposition to nuclear power may increase dramatically, regulatory requirements and costs could become more onerous or prohibitory. Such an incident could also impact customer demand for heat, electricity, or fuel derived from nuclear energy. Any of these effects could materially and adversely affect our business prospects, financial condition, results of operations and cash flows.

The direct and indirect impact on us and our customers from severe weather and other effects of climate change and the economic impacts of the transition to low-emissions energy, could adversely affect our financial condition, operating results, and cash flows.

Our operations and properties, and those of our customers, may in the future be adversely impacted by flooding, wildfires, high winds, drought and other effects of severe weather conditions that may be caused or exacerbated by climate change. These events can force our customers to suspend operations at impacted properties and may result in significant damage to such properties. Even if these events do not directly impact us or our customers, they may indirectly impact us and our customers through increased insurance, energy or other costs. In addition, although the ongoing transition to low-emissions energy is creating significant opportunities for us and our customers, the transition also presents certain risks, including macroeconomic risks related to higher energy costs and energy shortages, among other things. These direct and indirect impacts from climate change could adversely affect our financial condition, operating results, supply chain and cash flows.

The occurrence of adverse events, cancellations of significant projects, delays in project timelines, adjustments in cost structures, and other negative developments announced by competitors could have an impact on our operations, financial performance, and future prospects.

The occurrence of newsworthy events in the nuclear industry as a whole, including, but not limited to, the delay of major projects, inflated cost adjustments, fluctuations in product pricing strategies, cancellations of public offerings, customer withdrawals, or disruptions in supply chain adversely affect our business in several ways, including:

- Negative news or events associated with industry peers may lead to decreased investor confidence in the sector, which could impact the broader stock market performance of companies operating within the industry, including the Company.

- Adverse events in competitor firms may alter the competitive landscape, affecting market share dynamics, pricing strategies, and overall positioning within the industry. This could impact our ability to retain or expand our market presence.

- Changes in market dynamics influenced by competitors' actions, such as inflated cost adjustments or potential cancellations, could have ripple effects on our financial stability and profitability, influencing our financial metrics and potentially impacting investor perceptions.

While we implement risk mitigation strategies and highlight our unique business approach and how it differentiates from our peers, there is no guarantee that we will be insulated from the adverse effects of such events and the occurrence of any of these events could negatively impact our business operations and financial condition.

The IMSR Plant involves toxic, hazardous and/or radioactive materials and could result in liability without regard to fault or negligence.

Our customers' operation of the IMSR Plant and the related supply chain involve the use, transportation, and disposal of toxic, hazardous and radioactive materials. A release of these materials could pose a health risk to humans, plants and animals or the environment. If an accident were to occur, its severity would depend on the volume and location of the release and the speed of corrective action taken by emergency response personnel, as well as other factors beyond our control, such as weather and wind conditions.

The IMSR Fuel Salt from each spent IMSR Core-unit is partially reused in each replacement IMSR Core-unit with the excess fuel salt removed and stored in a spent fuel vault within the plant nuclear containment until decommissioning of the IMSR Plant. Furthermore, each spent IMSR Core-unit, emptied of IMSR Fuel Salt, is removed to a separate and secure IMSR Core-unit Storage Silo within the reactor building, where it will remain for the life of the plant. As a result of the IMSR Plant's spent fuel management process, we do not anticipate the plant requires a separate licensed facility for the interim storage of spent nuclear fuel required by some of our competitors.

Nevertheless, IMSR Plant operations inherently involve the use, transportation, and disposal of toxic, hazardous and radioactive materials.

Under federal, state and local laws and regulations, a current or former owner or operator of real property may be liable for costs to remediate contamination resulting from the presence or release of hazardous substances, wastes or petroleum products. These costs to the owners and operators of our IMSR Plants could be substantial and liability under such laws is strict and may attach whether or not the owner or operator knew of or caused such contamination. We also may be liable for costs of remediating third-party disposal sites to which we arranged for the disposal or treatment of hazardous substances without regard to whether such disposal occurred in compliance with environmental laws. These matters could have a direct and indirect adverse effect on our financial condition.

Additionally, we may be responsible for decontamination or decommissioning of facilities where we conduct operations such as facilities for component manufacturing and fuel supply. Activities of our contractors, suppliers or other counterparties similarly may involve toxic, hazardous, and radioactive materials and we may be liable contractually, or under applicable law, to contribute to remedy damages or other costs arising from such activities, including the decontamination or decommission of third-party facilities.

Although we do not intend to operate IMSR Plants, IMSR Plants inherently involve radioactive materials and may involve toxic and hazardous materials. In the United States, the nuclear liability law codified at 42 U.S.C. 2210 et seq. (along with subsequent amendments, the "**Price-Anderson Act**") and applicable USNRC regulations and corresponding insurance requirements channel liability to the nuclear operator of a nuclear power plant for third-party offsite damages caused by a nuclear incident or a precautionary evacuation due to a possible or actual nuclear incident. U.S. law is substantially similar in effect to global nuclear liability regimes wherein operators are subject to robust financial protection regimes, such as required insurance policies or government indemnification, to cover the operator's financial risk in the event of a nuclear incident that gives rise to third-party offsite liability. Nonetheless it is possible that we may be liable contractually, or under applicable law, to contribute to remedy damages or other costs arising from such activities of operators or contractors, suppliers, our counterparties, including the decontamination or decommission of third-party facilities. In our contracts, we seek to protect ourselves from liability, but there is no assurance that such contractual limitations on liability will be effective in all cases or in all jurisdictions. The costs of defending against a claim arising out of a nuclear incident or precautionary evacuation not otherwise covered by insurance, and any damages awarded as a result of such claim, could adversely affect our results of operations and financial condition. Long-term spent nuclear fuel storage, disposal and its associated costs could have a significant negative impact on our business operations if IMSR Plant customers view the risks associated with these issues and costs as unacceptably high.

Nuclear operations inherently produce various types of nuclear waste materials. The approval of a national repository for the storage of such waste materials and the timing of that facility opening may significantly affect the costs associated with the long-term storage of spent IMSR Core-units and IMSR Fuel Salt. Any regulatory action relating to the timing and availability of a repository for long-term storage of nuclear waste could adversely affect the ability to decommission fully our IMSR Plants and IMSR Core-units. We cannot predict whether a fee may be established or to what extent in the future for the long-term disposal of such waste.

Unsatisfactory safety performance or security incidents at our customers' facilities — or any nuclear facility around the world — could have a material adverse effect on our business, financial condition and results of operations.

We design IMSR Plants that depend on complex, unproven technology. We also work cooperatively with our customers, suppliers, subcontractors, and other parties. Failures, disruptions or compromises to our or our third parties' systems or facilities may be caused by natural disasters, accidents, power disruptions, telecommunications failures, acts of terrorism or war, computer viruses, bugs or vulnerabilities, physical or electronic break-ins, human error, targeted cyberattacks, other intentional conduct, or similar events or incidents. While we have built operational processes to ensure that the design, construction, performance and servicing of our IMSR Plants meet rigorous safety standards and performance goals, there can be no assurance that we will not experience operational or process failures or other problems, including through manufacturing or design defects, failure of third-party safeguards, mishandling or process failures, natural disasters, cyber attacks, or other intentional acts, that could result in potential safety risks. There can be no assurance that our preparations, or those of third parties, will be able to prevent any such incidents.

Any actual or perceived safety issues may result in significant reputational harm to our businesses, in addition to tort liability, maintenance, increased safety infrastructure and other costs that may arise. Such issues with our IMSR Plants, facilities, or customer safety could result in delaying or cancelling delivery of IMSR Plants to our customers, increased regulation or other systemic consequences. Our inability to meet our safety standards or address adverse publicity affecting our reputation as a result of accidents, mechanical failures, damages to customer property or medical complications could have a material adverse effect on our business, financial condition and results of operation.

In the nuclear industry, accidents or incidents involving the mishandling of nuclear materials at any nuclear facility in the world have had and, in the future, could have an impact on other nuclear facilities around the world in terms of public acceptance, political pressures, and regulatory requirements and scrutiny. Incidents involving nuclear energy facilities, including accidents, terrorist acts or other high-profile events involving radioactive materials, could materially and adversely affect the public perception of the safety of nuclear energy, and such adverse effects could potentially decrease demand for nuclear energy, increase regulatory requirements and costs for us or our customers, impose delays or result in liability or claims that could materially and adversely affect our business.

We are subject to information technology and cyber security threats which could have adverse effects, including regulatory effects, on our business and results of operations.

We are increasingly dependent upon information technology systems, infrastructure and data to operate our business. In the ordinary course of business, we collect, store and transmit confidential information (including but not limited to intellectual property, proprietary business information and personal information). It is critical that we do so in a secure manner to maintain the confidentiality and integrity of such confidential information. We also have outsourced elements of our operations to third parties, and as a result we manage a number of third-party contractors who have access to our confidential information. Regarding actual IMSR Plant deployments, we are subject to the USNRC's regulations in this area, the violation of which could carry regulatory enforcement action.

Despite the implementation of security measures, given their size and complexity and the increasing amounts of confidential information that they maintain, our internal information technology systems and those of our contractors and consultants are potentially vulnerable to breakdown or other damage or interruption from service interruptions, system malfunction, natural disasters, terrorism, war and telecommunication and electrical failures, as well as security breaches from inadvertent or intentional actions by our employees, contractors, consultants, business partners, and/or other third parties, or from cyber-attacks by malicious third parties (including the deployment of harmful malware, ransomware, denial-of-service attacks, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of information), which may compromise our system infrastructure or lead to data leakage. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and reputational damage, and the further development and commercialization of our products could be delayed.

We cannot assure you that our data protection efforts and our investment in information technology will prevent significant breakdowns, data leakages, breaches in our systems or other cyber incidents that could have a material adverse effect upon our reputation, business, operations or financial condition. For example, we maintain databases comprised of our IMSR Plant design technical and engineering information and operations information. If one or more of these databases were to be lost or compromised, our ability to efficiently deploy and operate our IMSR Plants could be significantly impaired.

Furthermore, significant disruptions of our internal information technology systems or security breaches could result in the loss, misappropriation, and/or unauthorized access, use, or disclosure of, or the prevention of access to, confidential information (including, but not limited to, intellectual property, proprietary business information, and personal information), which could result in financial, legal, business, and reputational harm to us. For example, any such event that leads to unauthorized access, use, or disclosure of personal information, including personal information related to our employees, could harm our reputation directly, compel us to comply with federal and/or state breach notification laws and foreign law equivalents, subject us to mandatory corrective action, and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal information, which could result in significant legal and financial exposure and reputational damages that could potentially have an adverse effect on our business.

We rely on a limited number of suppliers for certain materials and supplied components, some of which are highly specialized and are being designed for first-of-a-kind or sole use in the IMSR Plant. We and our third-party vendors may not be able to obtain sufficient materials or supplied components to meet our manufacturing and operating needs, or obtain such materials on favorable terms or at expected costs.

We rely on a limited number of suppliers for certain raw materials and supplied components. While alternative suppliers to our current suppliers are available, we may not be able to obtain sufficient raw materials or supplied components to meet our manufacturing and operating needs from alternative suppliers, or obtain such materials on favorable terms or at expected costs, which could impair our ability to meet demand in a timely manner or increase our costs of production.

We do not directly manufacture, and do not expect to manufacture, IMSR Plants, though we will manufacture the IMSR Core-unit and supply the IMSR Fuel Salt that are necessary for the operation of our IMSR Plants. Our ability to construct our IMSR Plants with project partners is dependent upon sufficient availability of raw materials, high quality equipment, parts, and components, including many highly technical components that are still under design, are being designed for first-of-a-kind or sole use in our IMSR Plant and have not yet been qualified for use, are only produced by a limited number of suppliers and may be particularly susceptible to cost increases, supply chain disruptions or inflationary pressures. Any supply chain disruption incurred by our third-party suppliers or degradation in the quality and processes of our manufacturer partners, may result in delays, cost overruns or impairments to the development of our IMSR Plants.

Certain key nuclear grade materials and components, such as graphite, are currently produced in limited quantities and available predominantly from vendors outside of the United States e.g., Germany and Japan. Although U.S. graphite suppliers are developing the capability and capacity to supply our needs, any reliance on foreign suppliers to secure raw materials and supplied components exposes us to changing tariffs and volatility in the prices and availability of these materials, and may result in our being susceptible to changes in geopolitical relationships. We may not be able to obtain a sufficient supply of raw materials or supplied components, on favorable terms or at all, which could result in delays in, or the inability to, manufacture our IMSR Fuel Salt and IMSR Core-unit components and, in turn, construct our IMSR Plants with project partners or result in increased costs. These key materials and components may also be particularly vulnerable to inflationary pressures and cost increases.

Additionally, the imposition of tariffs and impacts of inflation on raw materials or supplied components for our IMSR Plants could have a material adverse effect on our operations. Prolonged disruptions in the supply of any of our key raw materials or components, difficulty qualifying new sources of supply, implementing use of replacement materials or new sources of supply or any volatility in prices could have a material adverse effect on our ability to operate in a cost-efficient, timely manner. Such prolonged disruptions could also cause us to experience cancellations or delays of scheduled launches, customer cancellations or reductions in our prices and margins, any of which could harm our business, financial condition and results of operations.

We depend on key executives, management, directors, and other highly skilled personnel with highly technical expertise to execute our business plan and oversee our operations, as applicable. Our failure to successfully recruit and retain experienced and qualified personnel could have a material adverse effect on our business.

Our success depends, in significant part, on the continued services of our senior management team and on our ability to attract, motivate, develop and retain a sufficient number of other highly skilled personnel, including highly competent engineers and scientists, and other qualified personnel with requisite industry knowledge, manufacturing and quality assurance, finance, marketing and sales personnel. Our senior management team has extensive experience in the energy and manufacturing industries, and we believe that their depth of experience is instrumental to our continued success. Nevertheless, the Company competes with other nuclear reactor companies, including Generation IV reactor companies, for the limited pool of these skilled professionals and such competition is intense. The loss of any one or more members of our senior management team, for any reason, including resignation or retirement, could impair our ability to execute our business strategy and have a material adverse effect on our business and financial condition if we are unable to successfully attract and retain qualified and highly skilled replacement personnel. Additionally, possible loss of experienced personnel to competitors, and a possible transfer of know-how and trade secrets associated therewith, including the patenting by our competitors of technology built on our know-how obtained through former employees, could negatively affect the Company's long-term growth prospects. If we are unable to recruit and retain highly skilled personnel, especially senior management and personnel with sufficient technical expertise to develop our IMSR Plants including its component and service supply IMSR, we may experience delays, increased costs and reputational harm.

Our ability to protect our patents and other intellectual property rights may be challenged and is not guaranteed. If we are unable to protect our intellectual property rights, our business and competitive position may be harmed.

We may not be able to prevent unauthorized use of our intellectual property, which could harm our business and competitive position. We rely upon a combination of the intellectual property protections afforded by patents, trademarks/service marks, copyrights and trade secret laws in the United States and other jurisdictions, as well as commercial agreements such as confidentiality agreements, assignment agreements, and license agreements to establish, maintain and enforce rights associated with our IMSR Plants and related proprietary technologies. These measures are aimed at preventing third parties from using, practicing, selling, manufacturing, or otherwise commercially exploiting our IMSR Plants and related technologies, which would erode our competitive position in our market.

Our success depends in large part on our ability to obtain and enforce patent protection for our IMSR Plants, as well as our ability to operate without infringing or violating the proprietary rights of others. We either own or have significant license rights to certain intellectual property applicable to our IMSR Plant, IMSR Fuel Salts and, key components, such as the IMSR Core Unit, including patent rights and pending patent applications on the same, and we will continue to file patent applications claiming new technologies directed to our IMSR Plants in the United States and in other jurisdictions based on several factors including, but not limited to, commercial viability. Monitoring unauthorized use of our intellectual property rights is difficult and costly, and the steps we have taken or will take to prevent misappropriation may not be sufficient.

As noted above, we also rely upon unpatented trade secret protection, unpatented know-how and continuing technological innovation to develop and help maintain our business and competitive position. We seek to protect our proprietary technology, in part, by entering into confidentiality agreements with our suppliers, subcontractors, venture partners, employees and consultants, and other third parties. However, we may not be able to prevent the unauthorized disclosure or use of information which we consider to be confidential, our technical know-how or other trade secrets by the parties to these agreements, despite the existence generally of confidentiality provisions and other contractual restrictions. If any of the suppliers, subcontractors, venture partners, employees and consultants, and other third parties who are parties to these agreements breaches or violates the terms of any of these agreements, we may not have adequate remedies for any such breach or violation, and we could lose our trade secrets as a result. It is also possible that our trade secrets, know-how or other proprietary information could be obtained by third parties as a result of breaches of our physical or electronic security systems. Even where remedies are available, enforcing a claim that a party illegally disclosed or misappropriated our trade secrets is expensive and time consuming, and the outcome is unpredictable. Courts outside the United States are sometimes less willing to protect trade secrets. Additionally, despite our efforts to protect our proprietary technology, our trade secrets could otherwise become known or be independently discovered by our competitors. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them, or those to whom they communicate, from using that technology or information to compete with us.

The patent position of our IMSR Plant and its key components is not a guarantee of protection or rights. During the patent prosecution process, a patent office may require us or our licensors to narrow the scope of the claims of our or our licensors' pending and future patent applications. This may limit the scope of patent protection and our or our licensors' ability to assert patent infringement if the patent is subsequently issued. In some cases, a patent may not issue if we or our licensors are unable to overcome rejections from a patent office. By pursuing patent rights by filing a patent, we or our licensors may lose trade secrets that would have otherwise been protected had a patent not been sought and third parties may be able to exploit such published information in our patent application. Additionally, even if we obtain a patent in one jurisdiction (*e.g.*, the United States), we cannot guarantee that we will obtain a corresponding patent in another jurisdiction (*e.g.*, China) as patent laws differ from jurisdiction to jurisdiction. Additionally, maintaining and enforcing patent rights can involve complex legal and factual questions and may be subject to litigation in some cases. For example, third parties may challenge the validity of our or our licensors' patents based on prior art at a tribunal such as the Patent Trial and Appeal Board at the U.S. Patent and Trademark Office and in a federal court. Because we cannot assure that all of the potentially relevant prior art relating to our patents and patent applications has been found, third parties may prevail in invalidating a patent or preventing a patent application from being issued as a patent. If we or our licensors are able to maintain valid patents or prevail in patent challenges instituted by third parties, we or our licensors may still bear the risk of third parties "designing around" our technologies to avoid an intellectual property infringement claim.

Our patent applications may not result in issued patents, which may have a material adverse effect on our ability to prevent others from commercially exploiting products similar to ours. The status of patents involves complex legal and factual questions, and the breadth of claims allowed is uncertain. As a result, we cannot be certain that the patent applications that we file will result in patents being issued, or that our patents and any patents that may be issued to us will afford protection against competitors with similar technology. Numerous patents, published pending patent applications and unpublished pending patent applications owned by others exist in the fields in which we have developed and are developing our technology. In addition to the risk of infringing those patents, those patents and patent applications owned by others may also be used as a basis to invalidate our patents or prevent our patent applications from issuing as patents. Our patents may also be challenged as invalid under other prior art and/or be challenged as unenforceable. Furthermore, patent applications filed in foreign countries are subject to laws, rules and procedures that differ from those of the United States, and thus we cannot be certain that foreign patent applications related to issued U.S. patents will be issued.

Even if our patent applications succeed and we are issued patents in accordance with those applications, it is still uncertain whether these patents will be contested, circumvented, invalidated or limited in scope in the future. The rights granted under any issued patents may not provide us with meaningful protection or competitive advantages, and some foreign countries provide significantly less effective patent enforcement than in the United States. In addition, the claims of any patents that issue from our patent applications may not be broad enough to prevent others from developing technologies that are similar or that achieve results similar to ours. The intellectual property rights of others could also bar us from licensing and exploiting any patents that issue from our pending patent applications. From time to time, we may develop technology with funding from the United States Department of Energy. Inventions conceived or first actually reduced to practice under agreements with the Department of Energy ("**subject inventions**") grant the U.S. Government certain rights and impose specific obligations on our ability to practice and license these inventions. The U.S. Government also has march-in rights, although it has never exercised such rights, to require us to license a patent on subject inventions on reasonable terms under very limited circumstances. In addition, patents issued to us could be infringed or designed around by others and others may obtain patents that we need to license or design around, either of which would increase costs and may adversely affect our business, prospects, financial condition and operation results.

We currently enjoy only limited geographical protection with respect to certain issued patents and trademarks and may not be able to protect our intellectual property rights throughout the world. If we are unable to protect our intellectual property rights, our business and competitive position may be harmed.

We do not have worldwide patent rights for our IMSR Plant and related proprietary technologies because there is no such thing as worldwide or "international patent rights." We also do not have worldwide trademark protection for our brand for similar reasons. Accordingly, we may not be able to protect our intellectual property rights in certain jurisdictions and their legal systems. Filing, prosecuting and defending patents on our IMSR Plant worldwide can pose several challenges. First, procuring patent rights in multiple jurisdictions may be cost prohibitive because individual patent offices in different jurisdictions will have to independently examine each patent application. Therefore, costs such as examination fees, translation fees and attorneys' fees are considered when deciding whether to pursue patent protections in a given jurisdiction. Once a patent is registered, we or our licensors will also have the continued obligation of paying maintenance fees periodically to avoid patents from becoming abandoned or lapsed. Second, the breadth of claims in patents may vary from jurisdiction to jurisdiction. For instance, certain patent offices may require narrower claims, resulting in patent rights that are less extensive. Further, as noted above, we may not be able to obtain patents in some jurisdictions even if we obtain patents in other jurisdictions. Accordingly, our competitors may operate in countries where we do not have patent protection and can freely use our technologies and discoveries in such countries to the extent such technologies and discoveries are publicly known or disclosed in countries where we do have patent protection or pending patent applications.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. Many countries also limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business and financial condition may be adversely affected.

We may need to defend ourselves against intellectual property infringement claims, which may be time-consuming and could cause us to incur substantial fees and costs.

Companies, organizations or individuals, including our existing and future competitors, may hold or obtain patents, trademarks/service marks or other intellectual property rights that would prevent, limit or interfere with our ability to develop our intellectual property and make, use, develop, import, offer to sell or sell our IMSR Plants and its related proprietary technologies, which could make it more difficult for us to operate the Company. From time to time, we may receive inquiries from holders of patents or trademarks/service marks inquiring whether we are infringing their proprietary rights and/or seek court declarations that they do not infringe our intellectual property rights. Companies holding patents or other intellectual property rights similar to our technology may bring proceedings alleging infringement of such rights or otherwise asserting their rights and seeking licenses. In addition, if we are determined to have infringed a third party's intellectual property rights, we may be required to do among other things, one or more of the following: (i) cease selling, incorporating or using IMSR Plants that incorporate the challenged intellectual property; (ii) pay substantial damages; (iii) pay for and obtain a license from the holder of the infringed intellectual property right, which may not be available on reasonable terms or at all; or (iv) redesign part or all of our technology. In the event of a successful claim of infringement against us and our failure or inability to obtain a license to the infringed technology, our business, prospects, operating results and financial condition could be materially adversely affected. In addition, any litigation or claims, whether or not valid, could result in substantial costs and diversion of resources and management's focus and attention.

We also anticipate licensing patents and other intellectual property from third parties, and we may face claims that the use of this intellectual property infringes the rights of other third parties. In such cases, we may seek indemnification from the licensors under our license contracts with those licensors or other damages. However, our rights to indemnification or damages may be unavailable or insufficient to cover our costs and losses, depending on our use of the technology, whether we choose to retain control over conduct of the litigation, and other factors.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent, which might adversely affect our ability to develop and market our IMSR Plants.

We cannot guarantee that any of our patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough because there may be hundreds of thousands of relevant patents worldwide. We also cannot be certain that we have identified each and every third-party patent and pending application in the United States and abroad that is relevant to or necessary for the commercialization of our IMSR Plants in any jurisdiction. The scope of a patent claim is generally determined by an interpretation of the law, the written disclosure in a patent, and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect or not accepted by a court of competent jurisdiction. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect or inaccurate. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our IMSR Plants.

There are several circumstances under which a patent application may not be published and accessible to us or our licensors. For example, patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, but some patent applications in the United States may be maintained in secrecy until the patents are issued. Publications in the scientific literature also often lag behind actual discoveries. Therefore, we cannot be certain that others have not filed patent applications for technology covered by our issued patents or our pending applications, or that we were the first to invent the technology or to file a patent application covering the technology. Our competitors may have filed, and may in the future file, patent applications covering our IMSR Plants or technology similar to ours without us knowing. Any such patent application may have priority over our patent applications or patents, which could require us to procure rights to issued patents covering such technologies in order to avoid infringement claims.

Customization and hybridization of the Thermal and Electric Facility may require additional research and development and/or reliance on external service providers.

We believe the IMSR Thermal and Electric Facility can be customized by the adaption of existing industrial technologies although we cannot provide assurance that will be the case. Should this not be the case, customization and hybridization of the Thermal and Electric Facility for specific applications may require extensive research and development programs and/or the development of new technologies. We have little experience of customization of the IMSR Thermal and Electric Facility and its hybridization with other energy systems and may rely on others to provide these services. As such, the timeline and cost of commercializing customized IMSR Plants will be longer than we currently anticipate.

We may be subject to claims of ownership and other rights to our patents and other intellectual property by third parties.

Our confidentiality and intellectual property assignment agreements with our employees, consultants, and contractors generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive intellectual property and are required to be assigned to us if necessary. While we require our employees, consultants, and contractors to assign such intellectual property to us in the event that the intellectual property is not automatically assigned (*e.g*., as work made for hire), those agreements may not be honored and obligations to assign intellectual property may be challenged or breached. Moreover, there may be some circumstances, where we are unable to negotiate for such ownership rights and others misappropriate those rights in the process.

We may be subject to claims that former employees, collaborators, or other third parties have an interest in our patents or other intellectual property as an owner, a joint owner, a licensee, an inventor, or a co-inventor. In the latter two cases, the failure to name the proper inventors on a patent application can result in the patents issuing thereon being unenforceable. Inventorship disputes may arise from conflicting views regarding the contributions of different individuals named as inventors, the effects of foreign laws where foreign nationals are involved in the development of the subject matter of the patent, conflicting obligations of third parties involved in developing our patented technology or as a result of questions regarding co-ownership of potential joint inventions. Litigation may be necessary to resolve these and other claims challenging inventorship and ownership. Alternatively, or additionally, we may enter into agreements to clarify the scope of our rights in such intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose exclusive ownership of, or right to use or license valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Some of our management team have limited experience in operating a public company.

While several of our board members have experience as directors of publicly traded companies, some of our executive officers have limited experience in the management of a publicly traded company. Our management team may not successfully or effectively manage its transition to a public company that will be subject to significant regulatory oversight and reporting obligations under federal securities laws. Their limited experience in dealing with the increasingly complex laws pertaining to public companies could be a significant disadvantage in that it is likely that an increasing amount of their time may be devoted to these activities, which will result in less time being devoted to our management and growth. We may need to add additional personnel with the appropriate level of knowledge, experience, and training in the accounting policies, practices or internal controls over financial reporting to maintain what is required of public companies in the United States. The development and implementation of the standards and controls necessary for us to maintain the level of accounting standards required of a public company in the United States may require costs greater than expected. We could be required to expand our employee base and hire additional employees to support our operations as a public company, which will increase our operating costs in future periods.

Compliance with the reporting obligations under the United States securities laws and Section 404 of Sarbanes-Oxley requires expenditures of capital and other resources and may divert management's attention. If we fail to comply with these reporting obligations or to maintain adequate internal controls our operations, and investors' confidence in us, could be materially and adversely affected.

We are required to comply with the periodic reporting obligations of the Exchange Act, Sarbanes-Oxley and other applicable securities rules and regulations, including the preparation of annual reports, quarterly reports, and current reports. Complying with these rules and regulations could cause us to incur additional legal and financial compliance costs and make some activities more difficult, time-consuming and costly. Further, by complying with public disclosure requirements, our business and financial condition are more visible, which may result in increased threatened or actual litigation.

Management may not be able to effectively and timely implement controls and procedures that adequately respond to the increased regulatory compliance and reporting requirements that will be applicable after the Business Combination. If management is unable to conclude that we have effective internal control over financial reporting, or to certify the effectiveness of such controls, and our independent registered public accounting firm cannot render an unqualified opinion on management's assessment and the effectiveness of our internal control over financial reporting at such time as it is required to do so, and material weaknesses in our internal control over financial reporting are identified, we could be subject to regulatory scrutiny, a loss of public and investor confidence, and to litigation from investors and stockholders, which could have a material adverse effect on our business and our stock price. In addition, if we do not maintain adequate financial and management personnel, processes and controls, we may not be able to manage our business effectively or accurately report our financial performance on a timely basis, which could cause a decline in our common stock price and adversely affect our business, financial condition and results of operations. Failure to comply with the Sarbanes-Oxley Act could potentially subject us to sanctions or investigations by the SEC, the exchange upon which our securities are listed or other regulatory authorities, which would require additional financial and management resources.

If we fail to timely meet our reporting obligations under the Exchange Act, Sarbanes-Oxley and other applicable securities rules and regulations in their entirety, we could be subject to penalties under federal securities laws and regulations of the Nasdaq and face lawsuits, and we will not be able to obtain independent accountant certifications required for public companies under Sarbanes-Oxley.

Risks Related to Compliance with Law, Government Regulation and Litigation

Our business may be subject to the policies, priorities, regulations, mandates and funding levels of governmental entities and may be negatively or positively impacted by any change thereto.

From time to time, we may be subject to a wide variety of laws and regulations relating to various aspects of our business, including with respect to use and possession of radioactive materials; design, manufacture, operations, marketing and export of nuclear technologies; employment and labor; tax; data security of the operational and information technology we use; health and safety; zoning and environmental issues. Laws and regulations at the foreign, federal, state and local levels frequently change and are often interpreted in different ways, especially in relation to new and emerging industries, and we cannot always reasonably predict the impact from, or the ultimate cost of compliance with, current or future regulatory or administrative changes. While we monitor these developments and devote a significant amount of management's time and external resources towards compliance with these laws, regulations and guidelines, we cannot guarantee that these measures will be satisfactory to regulators or other third parties, such as our customers, who are also subject to extensive governmental regulation. Our efforts to comply with new and changing laws and regulations may result in increased general and administrative expenses and a diversion of management time and attention. Moreover, changes in law, the imposition of new or additional regulations or the enactment of any new or more stringent legislation that impacts our business could require us to change the way we operate and could have a material adverse effect on our sales, profitability, cash flows, financial condition, and lead to regulatory delays that could impact our ability to obtain licenses, certificates, authorizations, permits, approvals, and/or certifications from regulatory agencies (collectively referred to herein as "regulatory approvals").

Failure to comply with these laws may result in civil penalties or private lawsuits, or the suspension or revocation of those regulatory approvals, which would prevent us from operating our business. With respect to our IMSR Plants, we and our customers require regulatory approval from the USNRC or other relevant regulators to construct and operate the IMSR Plants, and any additional local and state permitting requirements, as needed, including with respect to nuclear safety, environmental, and financial qualification, among other requirements. Similar regulatory approvals apply to Terrestrial Energy's ability to develop the manufacturing capacity to supply IMSR Core-units and IMSR Fuel Salt to its customers. Our plans to deploy IMSR Plants rely on timely receipt of such regulatory approvals in the jurisdictions in which we seek to do business. Such regulatory approval processes may be subject to change, can be technically challenging to address, may result in the imposition of conditions that impact the financial viability of our IMSR Plants, and may also provide opportunities for third parties to lodge objections or seek more stringent requirements for our IMSR Plants. Failure to comply with these laws, obtain the required regulatory approvals, or receive exemptions from such regulations when available could result in regulatory enforcement, violations, fines, penalties, or the inability to operate our business. Any delays in regulatory approvals could also adversely affect our and our project partners' ability to meet construction and operation timelines and thereby affect our financial performance.

The U.S. government's budget deficit and the national debt, as well as any inability of the U.S. government to complete its budget or appropriations process for any government fiscal year could have an adverse impact on our or our customers' business, financial condition, results of operations and cash flows.

The U.S. government's budget deficit and the national debt, along with any negotiated resolution to increase or suspend the so-called debt ceiling, as well as any inability of the U.S. government to complete its budget process for any government fiscal year and consequently having to shut down or operate on funding levels equivalent to its prior fiscal year pursuant to a "continuing resolution," could have an adverse direct or indirect impact on our or our customers' business, financial condition, results of operations and cash flows.

Considerable uncertainty exists regarding how future budget and program decisions will unfold, including the energy spending priorities of the U.S. government, what challenges budget reductions will present for the energy industry and whether annual appropriations bills for all agencies will be enacted by the U.S. government in a given fiscal year and thereafter due to many factors, including but not limited to, changes in the political environment, including before or after a change to the leadership within the government administration, and any resulting uncertainty or changes in policy or priorities and resultant funding. The U.S. government's budget deficit and the national debt could have an adverse impact on our business, prospects, financial condition, results of operations and cash flows in a number of ways, including the following:

- The U.S. government could reduce or delay its spending on, reprioritize its spending away from, or decline to provide funding for the government programs in which we participate;

- U.S. government spending could be impacted by arrangements similar in effect to sequestration, which increases the uncertainty as to U.S. government spending priorities and levels; and

- We may experience declines in revenue, profitability and cash flows as a result of reduced or delayed demand or payments or other factors caused by economic difficulties of our customers and prospective customers, including U.S. federal, state and local governments.

These factors may become exacerbated by rising interest rates as more U.S. government spending must be appropriated to servicing the national debt or if a deal to increase or suspend the debt ceiling reduces, or blocks previously proposed increases in, government programs in which we participate. In the event we receive or benefit from significant support from state, local or non-U.S. governmental support, similar factors may impact such support as well. Furthermore, we believe continued budget pressures could have negative consequences for the nuclear energy industry and the customers, employees, suppliers, investors and communities that rely on companies in the nuclear energy industry. Budget and program decisions made in this environment would have long-term implications for us and the entire nuclear energy industry.

We may pursue government awards involving cost-share related to our R&D work, which could be affected by our failure to comply with certain laws and regulations.

From time to time, we may pursue federal funds under grants and cooperative agreements, in which case we would be required to comply with various statutes and regulations applicable to entities that perform awards in support of government entities. We must also comply with various national policy requirements that are prescribed by statute, Executive Order, policy guidance issued by the Executive Office of the President, or other regulations. Our performance under our U.S. government awards and our compliance with the terms of those awards and applicable laws and regulations would be subject to periodic audit, review, and investigation by various agencies of the U.S. government. Compliance with these laws and regulations may affect how we do business and may impose added costs on our business. Failure to comply may also lead to civil or criminal penalties, including whole or partial suspension or termination of our U.S. government awards, and/or suspension or debarment from contracting with federal agencies.

Uncertain global macro-economic and political conditions could materially adversely affect our business prospects, financial condition, results of operations and cash flow.

Our results of operations are materially affected by economic and political conditions in the United States and internationally, including inflation, deflation, interest rates, availability of capital, energy and commodity prices, trade laws and the effects of governmental initiatives to manage economic conditions. Current or potential customers may delay or decrease spending on our products and services as their business and budgets are impacted by economic conditions. The inability of current and potential customers to pay us for our products and services may adversely affect our earnings and cash flows.

The ongoing war in Ukraine has escalated tensions between the United States, and its North Atlantic Treaty Organization ("NATO") allies on one hand, and Russia on the other. These developments or other tensions in the future may continue to contribute to market disruptions, including significant volatility in commodity prices, credit and capital markets, as well as supply chain interruptions for equipment, which could have an adverse impact on our operations and financial performance. Global supply chain disruptions have increasingly affected both the availability and cost of raw materials, component manufacturing, reactor fuel and deliveries. These disruptions may result in delays in equipment deliveries and cost escalations that could adversely affect our business prospects, financial condition, results of operations and cash flows.

We and our suppliers are subject to stringent U.S. export and import control laws and regulations and analogous laws and regulations in other jurisdictions. Unfavorable changes in these laws and regulations or U.S. government or other relevant government licensing policies, our failure to secure timely U.S. government or other relevant government authorizations under such laws and regulations, or our failure to comply with such laws and regulations could have a material adverse effect on our business prospects, financial condition, results of operations and cash flows.

Our and our suppliers' inability to secure and maintain required export or import licenses or authorizations in applicable jurisdictions could negatively impact our ability to compete successfully or develop or market our IMSR technology for commercial applications in and outside the United States. For example, if we were unable to obtain or maintain licenses to export our IMSR technology or certain hardware to a particular country, we would be effectively prohibited from exporting our IMSR technology in that country, which would limit the number of customers to those in the United States and in countries where we are able to secure licenses (or where licenses are not required). If we were unable to obtain authorization to export our technology, hardware, code or technical assistance, we would experience a limited market for our technology, which would provide a commercial advantage to international suppliers of nuclear plant technology that is competitive to ours. In these cases, these restrictions could lead to an adverse impact on our ability to sell our commercial technology. Similarly, if we were unable to secure export or import authorizations, we may need to implement design changes to our IMSR Plants to address issues with our supplier chain, which may increase costs or result in delays in delivery of new plants and subsequent additional IMSR Plants.

Failure to comply with export control laws and regulations could expose us to civil or criminal penalties, fines, investigations, more onerous compliance requirements, loss of export privileges, debarment from government contracts or limitations on our ability to enter into contracts with the U.S. or other relevant government. Any changes in export control regulations or U.S. or other government licensing policy, such as that necessary to implement U.S. government commitments to multilateral control regimes, may restrict our operations.

We are part of the nuclear power industry, which is highly regulated. Our molten salt nuclear fuel form differs from fuel forms currently licensed and used by commercial nuclear power plants, and our IMSR technology differs from reactor technology currently in commercial operation, including with respect to potential industrial uses. As a result, the regulatory licensing and approval process for our IMSR Plants may be delayed and made more costly, and industry acceptance of our nuclear fuels may be hampered.

The nuclear power industry is highly regulated. All entities that operate nuclear power facilities, fabricate nuclear fuel and transport nuclear materials in the United States are subject to the jurisdiction of the USNRC (except for those facilities and applications separately regulated by the DOE), and entities performing the same activities in other countries are subject to regulation by the USNRC's counterparts around the world. Our IMSR Fuel Salt differs significantly in some respects from the fuel form used today by commercial nuclear power facilities. These differences may result in a longer and more extensive review by the USNRC and its counterparts around the world, which could cause fuel development program delays and delays in commercialization. Similarly, our IMSR design differs significantly in some respects from the nuclear reactors used today at commercial nuclear power facilities. These differences could result in more prolonged and extensive review by the USNRC and its counterparts around the world that could cause reactor development program delays and delays in commercialization. Under the Atomic Energy Act and the implementing USNRC regulations, members of the public, state, or tribal governments may request a public hearing opposing the issuance of any USNRC permit or license, or challenging portions of the license or permit application or of the USNRC's review. Certain USNRC actions also include provision for a mandatory administrative hearing regardless of whether any contentions are submitted in conjunction with the action. These hearing processes may delay or prevent the issuance of required regulatory approvals (e.g., permits or licenses) for our IMSR reactors.

While we have planned for engagements with any other nuclear regulators, such as the Office of Nuclear Regulation in the United Kingdom, to date we have only engaged with the USNRC and CNSC. Any planned international expansion will increase our exposure to U.S. export control laws as well as laws and regulations of foreign jurisdictions the impact of which cannot be predicted at this time. Exports to other countries may require cooperation from the United States or other governments and may result in shortages and delays if not accomplished within assumed timelines or costs. Additionally, we may require U.S. approvals in order to import certain materials and components which may be predominantly produced outside of the United States. We must obtain governmental licenses to transport, possess, and use radioactive materials, including isotopes of uranium, in our operations. These are generally granted as part of operations licensing. Our IMSR Plant project developer and operator customers will also require licensing and approvals, from initial approval or licensing through construction and operations and into decommissioning. Failure to obtain or maintain, or delays in obtaining, such licenses could have a material adverse effect on our business prospects, financial condition, results of operations and cash flows.

Our IMSR Fuel Salt development timeline relies on the relevant nuclear regulator to accept and approve technical information and documentation about our reactor fuel that is generated during the fuel qualification program. For example, we started our engagement with the USNRC in 2017, entering a pre-application phase of the U.S. nuclear regulatory process, which is guided by our regulator engagement plan, which we periodically update and file with the USNRC. There is a risk that regulators may require additional information regarding the fuel's behavior or performance that necessitates additional, unplanned analytical and/or experimental work which could cause schedule delays and require more research and development funding. Similarly, our reactor development timeline relies on the relevant nuclear regulator to accept and approve technical information and documentation about our IMSR Plant design in the course of any design-specific licensing, certification, approval or similar process, or in the course of facility-specific licensing. There is a risk that regulators may require additional information regarding the IMSR Plant's behavior or performance that necessitates additional, unplanned analytical and/or experimental work which could cause schedule delays and require more research and development funding.

We must complete nuclear material qualifications in a manner compliant with regulatory standards and obtain regulatory approvals for the use of various materials in our IMSR design. This includes long lead-time irradiation testing and analysis, which may require redesign or use of alternative suppliers if results are unsatisfactory. Further, certain key nuclear grade materials and components, such as graphite, are only produced in limited quantity and predominantly outside of the United States. Cultivating expanded foreign or domestic U.S. supply chain manufacturing capacity for key materials and components depends on cooperation from government and supply chain partners that may result in shortages and delays if not accomplished within assumed timelines or costs. These key materials and components may also be particularly vulnerable to inflationary pressures and cost increases.

The equipment, components, and materials used in a nuclear power plant are subject to a heightened level of manufacturing and quality assurance scrutiny, in compliance with USNRC regulations, applicable codes and nuclear industry standards. Moreover, it is critical to demonstrate in facility design and development that the materials used in the facility that will be exposed to radiation will perform in accordance with necessary design parameters. The heightened manufacturing and quality assurance requirements and regulatory oversight limit the number of potential suppliers from whom we can procure many types of equipment, components, and materials used in our IMSR Plant, as well as the types of facilities where we can test certain materials. These suppliers and the key materials and essential components may be particularly vulnerable to price increases, as a result of supply and demand dynamics, inflation and other price pressures. As a result, supplier delays, unexpected performance testing results, issues in the manufacturing process or procuring necessary materials, international procurement needs, regulatory compliance issues, component qualification issues or delays, increases in costs as a result of inflation or otherwise, and geopolitical considerations can all impact our ability to perform necessary R&D, construct and deploy our IMSR Plants. This could impact our project timelines and costs, as well as affect potential customer interest in our IMSR Plant design.

The IMSR Plant design has not yet been approved or licensed for use by the USNRC or the Canadian Nuclear Safety Commission at any site, and approval or licensing of these designs is not guaranteed. Further, the Company does not intend to act as the licensee, owner, or operator of IMSR Plants. Our business model is based on the supply of nuclear reactor systems, fuel, and engineering services to owner-operator customers who are responsible for securing all necessary regulatory approvals and financings. Unfavorable changes in the laws and regulations or other relevant government licensing policies applicable to our customers, or the failure of our customers to secure timely relevant government authorizations under such laws and regulations or to secure necessary financing to operate IMSR Plants, could have a material adverse effect on our business prospects, financial condition, results of operations and cash flows.

Terrestrial Energy has completed the CNSC Vendor Design Review process to systematically identify any fundamental barriers to licensing in the Canadian market, with no fundamental barriers to licensing identified by the CNSC. Terrestrial Energy is similarly engaged with the USNRC to address technical, policy, and programmatic matters ahead of formal application review. We started our engagement with the USNRC in 2017, entering a pre-application phase of the U.S. nuclear regulatory process guided by our regulator engagement plan. This plan anticipates that we will seek as applicant 10 C.F.R. Part 52 Standard Design Approval of the IMSR.

Notwithstanding those actions, the IMSR Plant design has not yet been licensed, certified or approved by the USNRC or the CNSC, and no currently operating USNRC- or CNSC-regulated reactor uses molten salt reactor technology. The USNRC has not advanced our status from the pre-application phase of the U.S. nuclear regulatory process. Additionally, no commercial nuclear reactor that is not water cooled is currently operating in the U.S. under an USNRC-issued license, and no advanced fission technology has been approved for commercial operation by the USNRC and, pending regulatory activity may not be finalized on timelines favorable to its commercialization schedule, or may impose requirements more onerous than anticipated.

The USNRC has the authority to issue notices of violation for violations of Title 10 of the Code of Federal Regulations, executing the Atomic Energy Act of 1954, as amended (the "Atomic Energy Act"), USNRC's regulations and conditions of licenses, certificates of compliance, and orders. The USNRC has authority to impose civil penalties (the maximum amount of which is adjusted annually to account for inflation) or additional requirements and to order cessation of operations for violations of these requirements. Penalties under the USNRC regulations and applicable agency guidelines could include substantial fines, imposition of additional requirements, or withdrawal or suspension of licenses or certificates and criminal penalties.

If the USNRC or CNSC disagrees with our, or our customers', licensing approach or the technical bases supporting the nuclear safety and environmental impact evaluations, the construction and operating license application processes could take longer than currently expected, or a license may not be granted at all, which could materially and adversely affect our business. Further, the USNRC or CNSC could impose conditions in a license that are not acceptable to us or our customers, which could materially and adversely affect our business. Any delays, conditions or unexpected requirements may increase costs for us or our customers and may result in uncertainty regarding the ability to deploy our technology in a predictable way, which may adversely impact our competitiveness and have a material adverse effect on our business prospects, financial condition, results of operations and cash flows.

IMSR Plant projects are expected to be financed at the project level by consortium participants, including operators, offtakers, suppliers, and third-party investors, potentially including the public sector, and those parties may be unable to raise sufficient capital, may face higher-than-expected costs of capital, or may impose conditions that delay or prevent a project from proceeding. We do not control, and may have limited visibility into, the financial condition, capital structure, or financing strategy of any particular owner-operator or project consortium. The failure of any consortium participant to fulfill its financing commitments, the withdrawal of a key participant, or the inability of the consortium to close project-level financing could result in a project being delayed, restructured, or abandoned entirely, which would in turn delay or eliminate the revenues we expect to derive from that project.

Changes in government agency budgets as well as staffing shortages at national laboratories and other government agencies may lengthen our estimated timelines for regulatory approval and construction.

Certain of our IMSR Plant's components and materials including IMSR Fuel Salt production are dependent upon collaborations with national laboratories and/or various regulatory approvals. Government agency budgets and staffing are driven by the priorities of leadership at federal agencies as well as policy makers. Changes in government agency budgets, personnel, and any resulting staffing shortages may delay operating of our IMSR Plants, including IMSR Fuel Salt production and delay or prevent the issuance of required regulatory approvals (e.g., permits or licenses) for our nuclear facilities.

Even if the IMSR Plant is licensed in the United States or Canada, we must still obtain approvals on a country-by-country basis to deploy these reactor technologies, which approvals may be delayed or denied or which may require modification to our design.

Even if the IMSR Plant is licensed, certified and/or approved in the United States or Canada, if we are to deploy our technology in other countries, we must first obtain regulatory approvals for our technology in those countries. The regulatory framework to obtain approvals is complex, varies from country to country, and may involve authorities on a sub-national or local level. Timelines are likely to be longer for initial deployments of our technology in any jurisdiction, as regulatory agencies may not be familiar with our technology and how it differs from the technology used in legacy nuclear power facilities. Moreover, other countries' approval processes may differ markedly from the USNRC process or the CNSC process, or they may require that we alter aspects of our design before providing approval. Denial or delay in approvals abroad could materially and adversely affect our business outside of the United States and Canada.

There is no assurance that nuclear regulators will accept the exclusion of the Thermal and Electric Facility from the operating license requirements for the IMSR Plant.

We believe the Thermal and Electric Facility of the IMSR Plant is outside the scope of nuclear regulation based on our understanding of nuclear regulatory requirements following our completed VDR engagement with the CNSC. However, there is no assurance that a nuclear regulator will accept the exclusion of the Thermal and Electric Facility. If this is not the case, our pursuit of new markets with novel applications will be severely limited and will likely exclude the use of natural gas for initial thermal energy supply and as back-up during full operation of the IMSR Plant.

Our customers could incur substantial costs as a result of violations of, or liabilities under, environmental laws.

The operations and properties of our customers are subject to a variety of federal, state, local and foreign environmental, health and safety laws and regulations governing, among other things, air emissions, wastewater discharges, management and disposal of hazardous, non-hazardous and radioactive materials and waste and remediation of releases of hazardous materials. Although our business is to design and sell our IMSR Plant design and supply key components and services, rather than to construct and own or operate power plants, we must design our IMSR Plant so it complies with such laws and regulations. Compliance with environmental requirements could require our customers to incur significant expenditures or result in significant restrictions on their operations, and the failure to comply with such laws and regulations, including failing to obtain any necessary permits, could result in substantial fines or enforcement actions, including regulatory or judicial orders enjoining or curtailing operations or requiring our customers to conduct or fund remedial or corrective measures, install pollution control equipment or perform other actions. More vigorous enforcement by regulatory agencies, the future enactment of more stringent laws, regulations or permit requirements, including relating to climate change, or other unanticipated events may arise in the future and adversely impact the market for our products or demand for our products from our customers, which could materially and adversely affect our business, financial condition and results of operations.

We are subject to laws and regulations governing the use, transportation, and disposal of toxic, hazardous and/or radioactive materials. Failure to comply with these laws and regulations could result in substantial fines and/or enforcement actions.

With respect to our component manufacturing and fuel supply both in the United States and abroad, our operations will be subject to a variety of federal, state, local environmental, health and safety laws and regulations governing, among other things, air emissions, wastewater discharges, management and disposal of hazardous, non-hazardous, and radioactive materials and waste and remediation of releases of hazardous materials. Additionally, we are responsible for decommissioning of facilities where we conduct, or previously conducted, commercial, USNRC-licensed, operations.

We may be liable if we fail to comply with federal, state, and local environmental, health and safety laws and regulations. Failing to comply with such laws and regulations, including failing to obtain any necessary permits, could result in substantial fines or enforcement actions. This might require us to stop or curtail operations or conduct or fund remedial or corrective measures, make additional investments into safety-related improvements or perform other actions. The enactment of more stringent laws, regulations or permit requirements or other unanticipated events may arise in the future and adversely impact the market for our products, which could materially and adversely affect our business, financial condition, and results of operations. We could incur substantial costs as a result of a violation of, or liabilities under, environmental laws.

Changes in tax laws could adversely affect our business prospects and financial results.

We will be subject to taxes in the United States and certain foreign jurisdictions. Due to economic and political conditions, tax rates in various jurisdictions, including the United States, may be subject to change. Our future effective tax rates could be affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities and changes in tax laws or their interpretation. We may be subject to income tax audits by various tax jurisdictions. An adverse resolution by one or more taxing authorities could have a material impact on our finances. Further, we may be unable to utilize any net operating losses in the event a change in control is determined to have occurred.

We may become involved in litigation that may materially adversely affect our business, financial condition and results of operations.

From time to time, we may become involved in various legal proceedings relating to matters incidental to the ordinary course of our business, including intellectual property, commercial, product liability, employment, class action, whistleblower and other litigation and claims, and governmental and other regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources from the operation of our business and cause us to incur significant expenses or liability or require us to change our business practices. Because of the potential risks, expenses and uncertainties of litigation, from time to time, we may settle disputes, even where we believe that we have meritorious claims or defenses. We are currently not a party to any material litigation. However, if any legitimate cause of action arose which was successfully prosecuted against us, the operations, results of operations or financial condition of the Company could be adversely affected. Because litigation is inherently unpredictable, we cannot assure you that the results of any of these actions will not have a material adverse effect on our business.

Risks Related to Capital Resources

In order to fulfill our business plan, we will require additional funding. To the extent we require such additional investor funding in the future, such funding may be dilutive to our investors and no assurances can be provided as to terms of any such funding. Any such funding and the associated terms will be highly dependent upon market conditions and the progress of our business at the time we seek such funding. The terms of any financing that we pursue may be less favorable than previously anticipated and could become even less favorable depending on the amount of funds we may require.

Our business plan is capital intensive. We cannot be certain when or if our operations will generate sufficient cash to fully fund our ongoing operations or the growth of our business. We intend to continue to make investments to support our business, and expect that significant additional capital will be needed in the future to continue our planned operations, including commercialization efforts, expanded research and development activities and costs associated with operating a public company.. To raise capital, we may enter into financing arrangements that may be costly or impose certain restrictive covenants or otherwise restrict our ability to seek additional leverage or financing. We may also seek to sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities, investors may be materially diluted by subsequent sales. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to the holders of our common stock. Pursuant to the Terrestrial Energy Incentive Plan, which will become effective upon the Closing, our board is authorized to grant compensatory equity awards to our employees, directors and consultants. If the number of shares reserved under our Terrestrial Energy Incentive Plan is increased pursuant to the terms of the Terrestrial Energy Incentive Plan, our stockholders may experience additional dilution, which could cause our stock price to fall. Any of the above events could significantly harm our business, prospects, financial condition and results of operations and cause the price of our common stock to decline.

Our corporate expenditures, including our corporate level outspend, are subject to numerous risks and uncertainties.

Our current and future operating expenses are uncertain and impacted by various factors outside of our control, including rising costs and other impacts of inflation, evolving regulatory requirements, raw material availability, global conflicts, global supply chain challenges and component manufacturing and testing uncertainties, among other factors. Accordingly, it is possible that our overall expenses and related outspend could be higher than the levels we currently estimate, and any increases could have a material adverse effect on our business, financial condition and results of operations.

We may experience an adverse impact from inflation and rising costs.

Over the last several years, inflation has increased to its highest level in decades. Inflation has resulted in, and may continue to result in, higher interest rates and capital costs, higher shipping costs, higher material costs, supply shortages, increased costs of labor and other similar effects. Although the impact of material cost, labor, or other inflationary or economically driven factors will impact the entire nuclear and energy transition industry (including renewable sources of electricity, like solar and wind), the relative impact may not be the same across the industry, and the particular effects within the industry will depend on a number of factors, including material use, design, structure of supply agreements, project management and others, which could result in significant changes to the competitiveness of our technology and our ability to sell IMSR Plants, which could have a material adverse effect on our business, financial condition and results of operations. In particular, higher interest rates can have significant impact on the total cost on long-term development and constructions projects such as power plants. Accordingly, higher interest rates may make it more difficult to obtain contracts and customers for the IMSR Plant.

We have a history of financial losses and may not achieve profitability in the future. We will need substantial additional capital to complete the design of the IMSR Plant and fund our operations.

We expect our operating expenses to increase over the next several years and expect to continue to incur operating losses for the foreseeable future as we continue to expand and develop, and we will need additional capital from external sources, regardless of redemption levels. If we are unable to raise additional capital we will have to make significant adjustments to our business plan which could impact some of our strategic objectives and significantly delay, scale back or discontinue one or more or all of our research and development programs. We may be required to cease operations or seek partners for our technologies at an earlier stage than otherwise would be desirable and on terms that are less favorable than might otherwise be available. In the absence of additional capital, we may also be required to relinquish, license or otherwise dispose of rights to technologies or products that we would otherwise seek to develop or commercialize on terms that are less favorable than might otherwise be available. If we are unable to secure additional capital, we may be required to take additional measures to reduce costs in order to conserve our cash in amounts sufficient to sustain operations and meet our obligations. These measures could have a material adverse effect on our business prospects, financial condition, results of operations and cash flows.

Future indebtedness could expose us to risks that could adversely affect our business, financial condition and results of operations.

In the future, we may incur indebtedness. Such indebtedness could have significant negative consequences for our security holders, business, results of operations and financial condition by, among other things:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- requiring the dedication of a substantial portion of our cash flow from operations to service our indebtedness, which will reduce the amount of cash available for other purposes;
- limiting our flexibility to plan for, or react to, changes in our business; and
- placing us at a possible competitive disadvantage with competitors that are less leveraged than us or have better access to capital.

Should we incur additional indebtedness in the future, our business may not generate sufficient funds, and we may otherwise be unable to maintain sufficient cash reserves, to pay any additional indebtedness that we may incur. Any future indebtedness that we may incur may contain financial and other restrictive covenants that will limit our ability to operate our business, raise capital or make payments under our indebtedness. If we fail to comply with such covenants or to make payments under any of our indebtedness when due, then we would be in default under that indebtedness, which could, in turn, result in that indebtedness becoming immediately payable in full and cross-default or cross-acceleration under our other indebtedness and other liabilities.

Our actual operating results may differ significantly from any guidance we may provide.

From time to time, we may release guidance in our quarterly earnings releases, quarterly earnings conference calls, or otherwise once we are a public company, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which would include forward-looking statements, would be based on projections prepared by our management. Should we provide projections, we do not expect that they would be prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our registered public accountants nor any other independent expert or outside party is expected to compile or examine the projections. Accordingly, no such person currently expresses, or in the future would be expected to express, any opinion or any other form of assurance with respect to the projections.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic, and competitive uncertainties and contingencies, many of which are beyond our control, such as pandemics and public health emergencies, the Russia-Ukraine conflict and the effects of changes to interest rates and inflation on our cost estimates and expectations, and are based upon specific assumptions with respect to future business decisions, some of which will change. Any material change to the assumptions or estimates underlying the projections management may prepare, or any material overruns or other unexpected increase in costs, could have a material adverse effect on the projections and the guidance on which it is based. The rapidly evolving market in which we operate, may make it difficult to evaluate our current business and our future prospects, including our ability to plan for and model future growth. Actual results may vary from our guidance and the variations may be material. The principal reason that we may from time to time release guidance is to provide a basis for our management to discuss our business outlook as of the date of release with analysts and investors. We do not accept any responsibility for any projections or reports published by any such persons. Investors are urged not to rely upon our guidance in making an investment decision regarding our common stock.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this "*Risk Factors*" section could result in our actual operating results being different from our guidance, and the differences may be adverse and material.

Our financial results may vary significantly from quarter to quarter.

We expect our revenue and operating results to vary from quarter to quarter. We may incur significant operating expenses during the start-up and early stages of large contracts and may not be able to recognize corresponding revenue in that same quarter. We may also incur additional expenses when contracts are terminated or expire and are not renewed. We may also incur additional expenses when companies are newly acquired.

Additional factors that may cause our financial results to fluctuate from quarter to quarter include those addressed elsewhere in this "*Risk Factors*" section and the following factors, among others:

- the terms of customer contracts that affect the timing of revenue recognition;
- variability in demand for our services and solutions;
- commencement, completion or termination of contracts during any particular quarter;
- timing of shipments and product deliveries;
- timing of significant bid and proposal costs;

- the costs of remediating unknown defects, errors or performance problems of our product offerings;
- restrictions on and delays related to the export of nuclear articles and services;
- costs related to government inquiries;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs and joint ventures;
- strategic investments or changes in business strategy;
- changes in the extent to which we use subcontractors;
- changes in our effective tax rate, including changes in our judgment as to the necessity of the valuation allowance recorded against our deferred tax assets; and
- the length of sales cycles.

Changes in our accounting estimates and assumptions could negatively affect the reporting of our financial position and results of operations.

We prepare our consolidated financial statements in accordance with U.S. GAAP. These accounting principles require us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of our financial statements. We are also required to make certain judgments that affect the reported amounts of revenues and expenses during each reporting period. We periodically evaluate our estimates and assumptions including, but not limited to, those relating to business acquisitions, revenue recognition, recoverability of assets including customer receivables, contingencies, valuation of financial instruments, stock-based compensation

and income taxes. We base our estimates on historical experience and various assumptions that we believe to be reasonable based on specific circumstances. These assumptions and estimates involve the exercise of judgment and discretion, which may evolve over time in light of operational experience, regulatory direction, developments in accounting principles and other factors. Actual results could differ from these estimates as a result of changes in circumstances, assumptions, policies or developments in the business, which could materially affect our consolidated financial statements.

Risks Related to our Securities

We incur additional costs as a public company that reports to the SEC and our management is required to devote substantial time to meet compliance obligations.

Requirements associated with being a public company in the United States require significant resources and management attention. We are subject to certain reporting requirements of the Exchange Act, and the other rules and regulations of the SEC, and Nasdaq. We are also subject to various other regulatory requirements, including the Sarbanes-Oxley Act. These rules and regulations increase our legal, accounting and financial compliance costs and make some activities more time-consuming and costly. For example, these rules and regulations may make it more difficult and more expensive for us to obtain directors' and officers' liability insurance, which could make it more difficult for us to attract and retain qualified members of our board of directors. In addition, complying with rules and regulations and the increasingly complex laws pertaining to public companies requires substantial attention from our senior management, which could divert their attention away from the day-to-day management of our business. These cost increases and the diversion of management's attention could materially and adversely affect our business, results of operations and financial condition. We will also need to hire additional personnel to support our financial reporting function and may face challenges in doing so.

The market price of Terrestrial Energy's securities may decline.

Fluctuations in the price of our common stock could contribute to the loss of all or part of your investment. The trading price of our common stock could be volatile and subject to wide fluctuations in response to various factors, some of which are beyond Terrestrial Energy's control. Inflationary pressures, increases in interest rates and other adverse economic and market forces may contribute to potential downward pressures in market value of our common stock. Additionally, any of the risk factors discussed in this annual report could have a material adverse effect on your investment and our common stock may trade at prices significantly below the price you paid for them. In such circumstances, the trading price of our common stock may not recover and may experience a further decline.

Broad market and industry factors may materially harm the market price of our common stock irrespective of Terrestrial Energy's operating performance. The stock market in general, and Nasdaq specifically, has experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, you may not be able to sell your securities at or above the price at which they were acquired. A loss of investor confidence in the market for the stocks of other companies which investors perceive to be similar to Terrestrial Energy could depress Terrestrial Energy's share price regardless of Terrestrial Energy's business, prospects, financial conditions or results of operations. A decline in the market price of Terrestrial Energy's securities also could adversely affect Terrestrial Energy's ability to issue additional securities and Terrestrial Energy's ability to obtain additional financing in the future.

There is no guarantee that our warrants will ever be in the money, and they may expire worthless.

The average exercise price for our warrants is $8.24 per share of common stock, subject to adjustment. There is no guarantee that the warrants will ever be in the money prior to their expiration, and as such, the warrants may expire worthless.

Your unexpired public warrants may be redeemed prior to their exercise at a time that is disadvantageous to you, thereby making your public warrants worthless.

Our outstanding publicly traded warrants (Nasdaq: IMSRW) (the "Public Warrants") may be redeemed at any time after they become exercisable and prior to their expiration, at a price of $0.01 per Public Warrant, provided that the last reported sales price of our common stock equals or exceeds $18.00 per share (as adjusted for stock splits, stock capitalizations, reorganizations, recapitalizations and the like) for any twenty (20) trading days within a thirty (30) trading-day period ending on the third (3rd) trading day prior to the date Terrestrial Energy sends the notice of redemption to the Public Warrant holders. If and when the warrants become redeemable by Terrestrial Energy, Terrestrial Energy may not exercise its redemption rights if the issuance of common stock upon exercise of the Public Warrants is not exempt from registration or qualification under applicable state blue sky laws or Terrestrial Energy is unable to effect such registration or qualification, subject to Terrestrial Energy's obligation in such case to use its best efforts to register or qualify the common stock under the blue sky laws of the state of residence in those states in which the Public Warrants were initially offered in our IPO. Redemption of the outstanding Public Warrants could force you (a) to exercise your Public Warrants and pay the exercise price at a time when it may be disadvantageous for you to do so, (b) to sell your Public Warrants at the then-current market price when you might otherwise wish to hold your Public Warrants or (c) to accept the nominal redemption price which, at the time the outstanding Public Warrants are called for redemption, is likely to be substantially less than the market value of your Public Warrants.

The Warrants may have an adverse effect on the market price of the Terrestrial Common Shares.

Terrestrial has outstanding warrants to purchase up to an aggregate of 30,267,119 shares of our common stock. Such Warrants, when exercised, will increase the number of issued and outstanding shares and may reduce the market price of our common stock. The common stock issuable upon such exercises may represent overhang that may adversely affect the market price of our common stock. Overhang occurs when there is a greater supply of a company's stock in the market than there is demand for that stock. When this happens the price of our stock could decrease, and any additional shares which stockholders attempt to sell in the market may only further decrease the share price. If the share volume of our common stock cannot absorb shares sold by holders of our outstanding convertible securities, then the value of our common stock will likely decrease.

The Certificate of Incorporation provides, subject to limited exceptions, that the courts of the State of Delaware will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.

The Certificate of Incorporation requires, to the fullest extent permitted by law, that derivative actions brought in our name, actions against directors, officers and employees for breach of fiduciary duty and other similar actions may be brought in the Court of Chancery of the State of Delaware or, if that court does not have jurisdiction, a state court located within the State of Delaware or the federal district court for the District of Delaware. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in the Certificate of Incorporation. In addition, the Certificate of Incorporation provides that this choice of forum does not apply to any complaint asserting a cause of action under the Securities Act and the Exchange Act. Finally, the Certificate of Incorporation provides that federal district courts of the United States will be the exclusive forum for the resolution of any complaint asserting a cause of action under the Securities Act or the Exchange Act.

While the Delaware Supreme Court has upheld provisions of the certificates of incorporation of other Delaware corporations that are similar to the exclusive forum provision in the Certificate of Incorporation, there is uncertainty as to whether courts will enforce the exclusive forum provision in the Certificate of Incorporation. In that regard, Section 22 of the Securities Act provides that federal and state courts have concurrent jurisdiction over lawsuits brought under the Securities Act or the rules and regulations thereunder. To the extent the exclusive federal forum provision for causes of action arising under the Securities Act restricts the courts in which claims arising under the Securities Act may be brought, there is uncertainty as to whether a court would enforce such a provision. Shareholders cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in the Certificate of Incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, operating results and financial condition.

A significant portion of our total outstanding shares of common stock are restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of common stock could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock.

We are party to certain agreements that provide registration rights to the counterparties.

As restrictions on resale end, including lock-up restrictions applicable to approximately 46,761,682 shares of our common stock that end between March 27, 2026 and October 28, 2026 depending on the trading price of our common stock, and the registration statement is available for use, the market price of our common stock could decline if the holders of currently restricted shares sell them or are perceived by the market as intending to sell them.

As an "emerging growth company," we cannot be certain if the reduced disclosure requirements applicable to "emerging growth companies" will make our common stock less attractive to investors.

As an "emerging growth company," we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies, including not being required to obtain an assessment of the effectiveness of our internal controls over financial reporting from our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards, which we have elected to do.

We cannot predict if investors will find our common stock less attractive because we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active market for our common stock, our share price may be more volatile and the price at which our securities trade could be less than if we did not use these exemptions.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 1C. CYBERSECURITY

Cybersecurity Risk Management and Compliance

We have established comprehensive frameworks and processes to manage material risks from cybersecurity threats, including the identification, assessment, and mitigation of existing cybersecurity risks, as well as continuous monitoring for emerging risks that could impact our operations.

Our approach is aligned with industry-leading frameworks such as the National Institute of Standards and Technology ("NIST") Cybersecurity Framework and is intended to guide our cybersecurity practices. However, this alignment does not imply that we meet any specific standards, specifications, or regulatory requirements, rather, we use NIST as a foundational guide for our initiative plan.

Our cybersecurity and physical security controls are implemented through a robust set of policies and procedures designed for the planning, execution, management, assessment, innovation, and continuous improvement of security measures. This includes a multi-layered network security architecture, regular security assessments, and penetration testing to proactively identify and address vulnerabilities. We have implemented critical security technologies, such as firewalls, Intrusion Detection and Prevention Systems ("IDPS"), and Endpoint Detection and Response ("EDR") solutions. Additionally, we conduct periodic vulnerability assessments and simulated cyberattack exercises to identify, mitigate, and remediate weaknesses within our IT infrastructure.

Our technology environment includes enterprise business systems and specialized analytical and technical software environments used for engineering and design activities. To safeguard these systems, we utilize security measures such as role-based access controls, multi-factor authentication for privileged accounts, encryption of sensitive data in transit and at rest, secure configuration standards, endpoint detection and response tools, and periodic cybersecurity awareness training for employees.

We also maintain processes designed to identify and manage cybersecurity risks associated with third-party service providers that may have access to our systems or data, including security due diligence for critical vendors and contractual data protection and breach notification requirements where appropriate.

Governance and Oversight

Oversight of enterprise risk, including cybersecurity risk, is the responsibility of the Company's Chief Executive Officer ("CEO"), Chief Technology Officer ("CTO"), Chief Operating Officer ("COO"), and Chief Financial Officer ("CFO"). These executives oversee the Company's cybersecurity priorities and risk management activities, including policies, procedures, and monitoring processes designed to safeguard the Company's information assets and technology systems. Delegated members of this leadership team are responsible for cybersecurity risk monitoring, threat detection, and incident reporting to the Audit Committee of the Company's Board of Directors, as well as reviews and evaluates the processes utilized by management to identify and assess the material internal and external risks that may affect our business. The Audit Committee receives updates regarding cybersecurity risks and incidents, as appropriate, as part of its oversight of enterprise risk management.

The Chief Operating Officer is responsible for cybersecurity strategy and implementation, including risk assessment, mitigation, and incident response, while the Chief Financial Officer is responsible for coordinating regulatory reporting related to cybersecurity matters.

Key individuals involved in overseeing and executing our cybersecurity strategy include:

· Chief Executive Officer - more than 20 years of finance and investment management experience across a broad range of industries and markets. Prior to joining the Company, he held senior leadership roles at Man Global Strategies, the strategic investment division of Man Group Plc, where he led strategic investments in North America and served on the firm's Investment Committee. He began his career as a derivatives structurer and trader at Credit Suisse Financial Products.

· Chief Technology Officer - globally recognized expert in molten salt reactor ("MSR") technologies with extensive experience in the development of advanced nuclear power systems. He founded Ottawa Valley Research Associates Ltd. to advance MSR technologies and has contributed to numerous patents, academic publications, and international industry forums focused on advanced reactor development.

· Chief Financial Officer - over 25 years of financial leadership experience serving as an executive and officer at large public and private companies. He has extensive experience in financial planning, public company reporting and financing, budgeting and forecasting, systems implementation, mergers and acquisitions, and regulatory compliance. Mr. Thrasher is a Certified Public Accountant and began his career in public accounting at Ernst & Young.

· Chief Operating Officer - over 44 years of experience in the energy sector, including more than 20 years in the nuclear industry. He has extensive experience in major project execution, operational leadership, supply chain management, and engagement with clients, suppliers, and regulators. Prior to joining the Company, he held senior leadership roles at Siemens Canada and Ontario Hydro / Ontario Power Generation.

· IT Director – over 20 years of IT leadership and management experience in various facets of the IT environment including risk and change and cybersecurity. He has overseen system implementations, IT infrastructure and network management, and related risk and change process improvements.

These individuals have played a central role in ensuring our transition to public company status, collaborating with both internal and external IT specialists to meet strictest compliance standards in alignment with applicable regulatory frameworks, including NIST, the Canadian Nuclear Safety Commission ("CNSC"), the U.S. Nuclear Regulatory Commission ("NRC"), the Department of Energy ("DOE"), the Federal Bureau of Investigation ("FBI"), and the Canadian Centre for Cyber Security ("CCCS").

Cyber Risk Management Strategy and Execution

The executive management team is directly responsible for the execution of our cyber risk management strategy and the implementation of the controls designed to protect the Company's operational infrastructure. This includes both ongoing oversight of security initiatives and the application of continuous improvement measures to ensure the integrity, confidentiality, and availability of our systems.

Potential cybersecurity threats are identified and analyzed through the Company's ongoing monitoring of its technology environment, including security monitoring activities, centralized logging, and threat detection processes supported by internal personnel and external cybersecurity service providers.

The COO and CFO, in consultation with the Company's General Counsel where appropriate, assess the materiality of cybersecurity incidents and determine any required public disclosure in accordance with applicable securities laws.

Currently, we are not aware of any risks from cybersecurity threats or cybersecurity incidents that have materially affected or are reasonably likely to materially affect the Company.

ITEM 2. PROPERTIES

Our headquarters is located in Charlotte, North Carolina, where we have leased approximately 7,355 square feet of commercial office space, expiring in July 2030. Additionally, we have leased approximately 9,822 square feet of office space in Oakville, Canada, for engineering and R&D support, expiring in January 2030.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we may be subject to various claims, lawsuits and other legal and administrative proceedings that may arise in the ordinary course of business. Some of these claims, lawsuits and other proceedings may range in complexity and result in substantial uncertainty; it is possible that they may result in damages, fines, penalties, non-monetary sanctions, or relief. We currently do not have any claims, lawsuits, or proceedings against us that, individually or in the aggregate, would be considered material to our business or likely to result in a material adverse effect on our future operating results, financial condition, or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is listed on the Nasdaq Capital Market (trading symbol: IMSR). As of December 31, 2025, there were 169 record holders of common stock.

Dividends

No cash dividends were paid in 2025 or 2024 on our common stock, and our current policy is to retain any future earnings to support our operations and finance the growth and development of our business. We do not intend to pay cash dividends on our common stock for the foreseeable future.

Purchase of Equity Securities by the Issuer and Affiliated Purchasers

None.

Recent Sales of Unregistered Securities

On October 28, 2025, the Company issued 166,298 restricted stock units ("RSUs") to Simon Irish, the Company's Chief Executive Officer, as an initial equity grant pursuant to Mr. Irish's employment agreement with the Company. Mr. Irish's RSUs vest pro rata over a three year period following the grant date.

On December 18, 2025, the Company issued 43,335 RSUs to its directors pursuant to the Company's director compensation policy for their service as directors. All such RSUs vest in full on December 31, 2026, subject to the director's continued service to the Company through such date.

The issuance of these RSUs was exempt from registration in reliance on Section 4(a)(2) of the Securities Act of 1933, as amended, as a transaction by an issuer not involving a public offering.

ITEM 6. RESERVED

Not applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS OF TERRESTRIAL ENERGY

Unless the context otherwise requires, all references in this section to "we", "us", "our", "its", "Terrestrial Energy", or the "Company" refer to Terrestrial Energy Inc. and its subsidiaries.

The following discussion and analysis of the financial condition and results of operations of Terrestrial Energy includes information that Terrestrial Energy's management believes is relevant to an assessment and understanding of Terrestrial Energy's consolidated results of operations and financial condition. You should read the following discussion and analysis of our financial condition and results of operations together with our audited consolidated financial statements for the years ended December 31, 2025 and 2024, together with the respective notes thereto. This discussion contains forward-looking statements reflecting current plans, estimates and assumptions concerning events and financial trends that may affect future operating results or financial position, which involve risks and uncertainties. Actual results and the timing of events may differ materially from those contained in these forward-looking statements due to a number of factors.

Overview

For an overview of the Company, see the information above presented under the section labeled "Item 1. Business," which is in "Part I" of this Annual Report.

Corporate History

HCM II Acquisition Corp. ("HCM II") was a special purpose acquisition company incorporated on April 4, 2024, as a Cayman Islands exempted corporation for the purpose of effecting a merger, share exchange, asset acquisition, stock purchase, reorganization, or similar business combination with one or more businesses. On October 23, 2025, HCM II domesticated as a Delaware corporation and changed its name to "Terrestrial Energy Inc." (the "Company"). On October 28, 2025, pursuant to the Business Combination Agreement, dated as of March 26, 2025, as amended, the Company completed the Business Combination with Terrestrial Energy Development Inc., ("TEDI"), a Delaware corporation, with TEDI surviving as a wholly owned subsidiary of the Company. Following the Business Combination, the Company became a holding company whose operations are conducted through TEDI and whose primary asset is its equity interest in TEDI. For accounting and financial reporting purposes, the Business Combination was accounted for as a reverse recapitalization, with TEDI treated as the accounting acquirer and HCM II treated as the accounting acquiree.

Recent Developments

Department of Energy ("DOE") Advanced Nuclear Reactor Pilot Program

On August 12, 2025, the Company announced that it had been selected for the DOE's Advanced Reactor Pilot Program, established by the Trump administration's May 2025 executive order to fast-track commercial licensing activities for small and modular nuclear plants that use advanced reactor technologies, expediting their broad deployment. We believe this represents a significant milestone in Terrestrial Energy's commercialization pathway, leveraging the program's fast-track approach to advance the licensing and deployment of the Company's proprietary IMSR technology.

DOE Advanced Nuclear Fuel Line Pilot Project

On September 30, 2025, the Company announced that it had been selected for the DOE's Advanced Nuclear Fuel Line Pilot Project, established by the Trump administration's May 2025 executive order to fast-track commercial licensing activities for small and modular nuclear plants that use advanced reactor technologies, expediting their broad deployment. The selection of Terrestrial Energy to the Fuel Line Pilot Project will expand access to the advanced fuel required to test our design and accelerate the transition from demonstration to deployment. When combined with our selection to the Advanced Nuclear Reactor Pilot Program, and our use of standard assay low enriched uranium ("SALEU") fuel, we believe this represents another significant milestone in Terrestrial Energy's commercialization pathway as we won't have to rely on scarce fuel in the commercialization of our proprietary IMSR technology.

DOE Other Transaction Authority ("OTA") Agreements

In January 2026, the Company executed two OTA agreements with the DOE under programs established by Executive Order 14301. The first agreement, for Project TETRA under the DOE's Advanced Reactor Pilot Program, provides for the construction and operation of a pilot reactor utilizing the Company's IMSR technology and SALEU fuel, enabling the Company to advance from design to operation under DOE authorization outside traditional federal contracting constraints. The second agreement, for Project TEFLA under the DOE's Fuel Line Pilot Program, provides for a pilot production facility to demonstrate the Company's proprietary IMSR Fuel Salt production technology using SALEU feedstock. Fuel produced under Project TEFLA will support the Company's Project TETRA test reactor project, being developed under DOE's Advanced Reactor Pilot Program. Together, these agreements are intended to support the commercialization of the Company's IMSR Plant.

Results of Operations

For the years ended December 31, 2025 and 2024

The following tables set forth our consolidated statement of operations for the years ended December 31, 2025 and 2024, and the dollar and percentage change between the two periods:

	For the Year ended December 31,			
	2025	2024	Change $	Change %
Revenue	—	248,357	(248,357)	(100)%
Operating expenses:				
Research and development costs	9,767,996	5,176,932	4,591,064	89 %
General and administrative	14,266,775	4,168,576	10,098,199	242 %
Depreciation and amortization	1,161,704	1,256,391	(94,687)	(8)%
Total Operating Expenses	25,196,475	10,601,899	14,594,576	138 %
Operating loss	(25,196,475)	(10,353,542)	(14,842,933)	143 %
Other (expense) income:				
Government grants	323,496	708,004	(384,508)	(54)%
Interest expense	(3,900,997)	(1,223,929)	(2,677,068)	219 %
Interest expense – related party	(438,214)	(88,906)	(349,308)	393 %
Loss on extinguishment of debt	—	(1,183,289)	1,183,289	100 %
Interest and dividend income	1,270,713	59,860	1,210,853	2,023 %
Foreign exchange gain (loss)	(57,214)	617,357	(674,571)	(109)%
Other (expense) income	(2,802,216)	(1,110,903)	(1,691,313)	152 %
Net loss before income taxes	(27,998,691)	(11,464,445)	(16,534,246)	144 %
Income tax expense	(17,950)	(20,965)	3,015	(14)%
Net loss	**$** (28,016,641)	$ (11,485,410)	(16,531,231)	144 %

Revenue

During 2024, the Company provided engineering services to a customer, which was recognized over time as the services were performed. The Company's contracts with customers are typically to provide a significant service by integrating a complex set of agreed tasks into a single deliverable. Consequently, the entire contract is accounted for as one performance obligation. The Company recognizes revenue from engineering services over time using an input method as performance obligations have no alternative use for the Company and the contracts would require payment to be received for the time and effort spent by the Company on progressing the contracts in the event of the customer cancelling the contract prior to completion for any reason other than the Company's failure to perform its obligations under the contract. Specifically, labor hours incurred are used to measure progress towards complete satisfaction of the service. This is considered a faithful depiction of the transfer of services as the contracts are initially priced on the basis of anticipated hours to complete the projects and, therefore, also represents the amount to which the Company would be entitled based on its performance to date.

Revenue for the years ended December 31, 2025 and 2024 was $0.0 million and $0.3 million, respectively. The decrease in revenue in 2025 is attributed to the completion of a contract with a customer in the oil and gas sector for pre-construction and use-specific engineering services, which was completed during 2024 and did not provide any revenue in 2025.

Operating Expenses

Research and development expense

R&D expenses represent costs incurred to design and engineer the IMSR Plant, including the costs of developing design tools. All research and development costs related to product development are expensed as incurred. R&D expense for the years ended December 31, 2025 and 2024 was $9.8 million and $5.2 million, respectively. The increase in 2025 is attributed to an increase in R&D activities performed by the Company in 2025, compared to 2024, as the Company increased its expenditures in testing activities and expanded headcount.

General and administrative expense

General and administrative expenses consist of costs, such as rent or lease costs, legal, audit and accounting services, and other professional fees, marketing costs, stock compensation, as well as personnel-related expenses for employees, executives and contractors.

General and administrative expense for the years ended December 31, 2025 and 2024 was $14.3 million and $4.2 million, respectively. The increase in 2025 compared to 2024 is primarily attributable to additional stock-based compensation expense associated with stock options and restricted stock units issued, along with overall operational growth including headcount as part of the business growth strategy.

Depreciation and amortization

Depreciation and amortization consist primarily of depreciation of our computer software and equipment and amortization of our patents and trademarks.

Depreciation and amortization expense for the years ended December 31, 2025 and 2024 was $1.2 million and $1.3 million, respectively. The decrease in 2025 was primarily due to certain fixed assets becoming fully depreciated in fiscal 2024.

Other Income and Expenses

Government Grants

Government grants decreased by $0.4 million, or 54% for the year ended December 31, 2025, as compared to the year ended December 31, 2024.

Interest expense and Interest expense - related parties

Interest expense and interest expense - related parties increased by $3.0 million, or 231%, for the year ended December 31, 2025 compared to the year ended December 31, 2024. The increase was primarily due to the issuance of convertible debt securities by the Company in the third and fourth quarters of 2024 and the first quarter of 2025 which accrued interest expense and the write-off of debt discount for a portion of 2024, and for ten months of the year in 2025. Additionally, average borrowings outstanding were higher during 2025 compared to 2024.

Interest and Dividend Income

Interest and dividend income increased by $1.2 million for the year ended December 31, 2025 compared to the same period in 2024 as a result of higher short-term investment balances.

Foreign exchange gain (loss)

Foreign exchange gain (loss) decreased by $0.7 million for the year ended December 31, 2025 compared to the same period in 2024 due to the volatility of the US dollar to Canadian dollar exchange rate.

Liquidity and Capital Resources

Historically, the Company's primary sources of liquidity have been cash flows from private fundraising offerings from related parties or other investors and other financing activities to fund operations. For the years ended December 31, 2025 and 2024, the Company reported operating losses of $25.2 million and $10.4 million, respectively, and negative cash flows from operations of $16.5 million and $8.2 million, respectively. As of December 31, 2025, the Company had $97.2 million in cash and cash equivalents and $200.6 million in short-term investments. The Company had net working capital of $293.6 million and an accumulated deficit of $124.6 million. Management expects that significant on-going expenditures will be necessary to successfully implement our business plan.

The Company commenced trading on Nasdaq under the symbol "IMSR" on October 29, 2025, after completing its business combination with HCM II on October 28, 2025. Pursuant to the closing of the business combination, the Company received in excess of $292 million in gross proceeds before expenses, which included gross proceeds of $50.0 million from the sale of common stock in a private placement (the "PIPE") and approximately $242.0 million from HCM II's trust account following redemptions of less than 1%.

The Company's future capital requirements will depend on many factors, including the timing and extent of spending to support further sales and marketing, research and development efforts, the Company's commercial development and deployment of its IMSR Plant, and future revenues. The Company may seek to obtain additional financing to commercialize the IMSR Plant technology through possible public or private equity offerings, debt financings, corporate collaborations, and other means. We believe that we have sufficient cash and cash equivalents and investments, along with continued access to capital markets, to satisfy our cash requirements for the next 12 months and beyond based on current operating plans.

Cash flows for the years ended December 31, 2025 and 2024

The following table summarizes the Company's cash flows from operating, investing and financing activities for the years ended December 31, 2025 and 2024:

	For the year ended December 31	
	2025	2024
Net cash used in operating activities	$ (16,472,912)	$ (8,202,934)
Net cash used in investing activities	$ (200,638,289)	$ (662,270)
Net cash provided by financing activities	$ 311,394,447	$ 7,254,268

Cash flows used in operating activities

Net cash used in operating activities for the year ended December 31, 2025 and 2024 was $16.5 million and $8.2 million, an increase of $8.3 million. The increase was primarily due to an increase in the Company's operating loss after non-cash items. The cause of the increase in the Company's operating loss was an increase in engineering costs and general and administrative costs as discussed above.

Cash flows used in investing activities

Net cash used in investing activities for the year ended December 31, 2025 was $200.6 million. The corresponding amount for the year ended December 31, 2024 was cash used of $0.7 million. The increase was primarily related to an increase in the purchases of property and equipment and short-term investments.

Cash flows provided by financing activities

Cash provided by financing activities for the year ended December 31, 2025 was $311.4 million compared to $7.3 million for the year ended December 31, 2024, an increase of $304.1 million. The increase was a result of the net proceeds from the recapitalization of $220.8 million, net proceeds of $49.5 million from the PIPE, proceeds from the exercise of stock options and warrants of $4.5 million, proceeds from issuance of convertible notes of $11.0 million, and proceeds from issuance of preferred stock of $25.8 million.

Off-Balance Sheet Arrangements

The Company does not have any off-balance sheet arrangements that have, or are reasonably likely to have, a material current or future effect on its financial condition, changes in financial condition, revenues, expenses, results of operations, liquidity, capital expenditures or capital resources.

Critical Accounting Policies and Estimates

Our financial statements have been prepared in accordance with U.S. generally accepted accounting principles. In the preparation of these consolidated financial statements, we are required to use judgment in the making estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the financial statements, as well as the reported expenses incurred during the reporting periods. On an ongoing basis, we evaluate our estimates and assumptions. Our actual results may differ from these estimates under different assumptions or conditions.

We consider an accounting judgment, estimate or assumption to be critical when (1) the estimate or assumption is complex in nature or requires a high degree of judgment and (2) the use of different judgments, estimates and assumptions could have a material impact on the consolidated financial statements. See Note 2, Significant Accounting Policies, in our accompanying consolidated financial statements for a description of our significant accounting policies.

Accordingly, these are the policies and estimates we believe are the most critical to aid in fully understanding and evaluating our consolidated financial condition and results of operations:

Foreign Currency

The Company's reporting currency is the US dollar. The functional currency of each subsidiary is determined by the currency of the primary economic environment in which the entity operates. The functional currency of TEON is the Canadian dollar, that of Terrestrial Energy Limited, a company incorporated under the laws of England and Wales, the Pound Sterling, and that of Terrestrial Energy USA, Inc., the United States dollar. Assets and liabilities of the operating subsidiaries are translated at the spot rate in effect at the applicable reporting date. Revenues and expenses of the operating subsidiaries are translated at the average exchange rates in effect during the applicable period. The resulting foreign currency translation adjustment is recorded as Accumulated other comprehensive income (loss), which is reflected as a separate component of Stockholders' Equity. The functional currency is translated into U.S. dollars for balance sheet accounts using currency exchange rates in effect as of the balance sheet date, and for revenue and expense accounts using a weighted-average exchange rate during the fiscal year. The transactions in foreign currency (that is a different currency than the functional currency of the entity) are converted at the exchange rate prevailing to the date of the transaction. The assets and liabilities denominated in foreign currencies are evaluated in the current period on the date of the closing or at the opening rate, when applicable. The translation adjustments are deferred as a separate component of equity in "Accumulated other comprehensive income (loss)". Gains or losses resulting from transactions denominated in foreign currencies and intercompany debt that is not of a long-term investment nature are included in Foreign exchange (gain) loss in the consolidated statements of operations and comprehensive loss.

Fair Value Measurements

Fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The authoritative guidance establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are from sources independent of the Company. Unobservable inputs reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The categorization of financial assets and liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The hierarchy is broken down into three levels:

- Level 1: Inputs are quoted prices in active markets for identical assets or liabilities.
- Level 2: Inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly.
- Level 3: Inputs are unobservable for the asset or liability.

The carrying amounts of certain financial instruments, such as cash equivalents, prepaid expenses and other current assets, short-term investments, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities.

Convertible Notes

The Company may enter into convertible notes, some of which contain, predominantly, fixed rate conversion features, whereby the outstanding principal and accrued interest may be converted by the holder, into common shares at a fixed discount to the market price of the common stock at the time of conversion. In this case, the convertible notes represent a financial instrument other than an outstanding share that embodies a conditional obligation that the issuer must or may settle by issuing a variable number of its equity shares. The Company records the convertible note liability at its fixed monetary amount by measuring and recording a premium, as applicable, on the convertible notes date in accordance with ASC Topic 480, Distinguishing Liabilities from Equity ("ASC 480").

Warrants

The Company reviews the terms of warrants to purchase its common stock to determine whether warrants should be classified as liabilities or stockholders' deficit in its consolidated balance sheets. In order for a warrant to be classified in stockholders' deficit, the warrant must be (i) indexed to the Company's equity and (ii) meet the conditions for equity classification.

If a warrant does not meet the conditions for stockholders' deficit classification, it is carried on the consolidated balance sheets as a warrant liability measured at fair value, with subsequent changes in the fair value of the warrant recorded in other items in the consolidated statements of operations and comprehensive loss. If a warrant meets both conditions for equity classification, the warrant is initially recorded, at its relative fair value on the date of issuance, in stockholders' deficit in the consolidated balance sheets, and the amount initially recorded is not subsequently remeasured at fair value.

Stock-Based Compensation

The Company accounts for stock-based compensation arrangements granted to employees in accordance with ASC 718, "Compensation: Stock Compensation", by measuring the grant date fair value of the award and recognizing the resulting expense over the period during which the employee is required to perform service in exchange for the award. Equity-based compensation expense is only recognized for awards subject to performance conditions if it is probable that the performance condition will be achieved. The Company accounts for forfeitures when they occur.

The Company uses the Black-Scholes option pricing model to determine the grant date fair value of its stock options granted. This model requires the Company to estimate the expected volatility and the expected term of the stock options, which are highly complex and subjective variables. The Company uses an expected volatility of its stock price during the expected life of the options that is based on the historical performance of the Company's stock price as well as including an estimate using similar companies. The expected term is computed using the simplified method as the Company's best estimate given its lack of actual exercise history. The Company has selected a risk-free rate based on the implied yield available on U.S. Treasury securities with a maturity equivalent to the expected exercise term of the stock option.

The Company grants restricted stock units ("RSUs") to employees and non-employee directors as part of its equity-based compensation program. RSUs represent the right to receive shares of the Company's common stock upon vesting, subject to specified service and/or performance conditions. RSUs do not have voting or dividend rights prior to the issuance of shares, except for dividend equivalents if and when declared, as applicable under the terms of the award agreements.

The Company accounts for RSUs in accordance with ASC 718, Compensation—Stock Compensation. Compensation expense for RSUs is measured at the grant-date fair value, which is equal to the closing market price of the Company's common stock on the date of grant. For RSUs subject solely to service-based vesting conditions, compensation expense is recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the award. The Company accounts for forfeitures as they occur.

Upon vesting, each RSU is converted into one share of the Company's common stock. The Company may withhold shares to satisfy statutory tax withholding requirements. The issuance of shares upon vesting results in an increase to common stock and additional paid-in capital.

Government Grants

Government grants are recognized where there is reasonable assurance that the grant will be received, and all attached conditions will be complied with. When the grant relates to an expense item, the grant is recognized in other income as government grants, deferred over the period necessary to match the grant on a systematic basis to the costs that it is intended to compensate. Where the grant relates to an asset, it is recognized as deferred income, and then recognized as income over the useful life of the related depreciable asset.

Merger and Reverse Recapitalization

Our consolidated financial statements reflect the results of the Merger, which was accounted for as a reverse recapitalization in accordance with U.S. GAAP. The accounting for the Merger required management to make significant estimates and judgments, particularly in identifying the accounting acquirer and evaluating the classification of certain financial instruments.

Under the guidance in ASC 805 — "Business Combinations," the determination of the accounting acquirer required management to consider a variety of factors, including the relative voting rights of the pre-combination shareholders, the composition of the board of directors and senior management of the combined entity, and the intended purpose and substance of the transaction. After considering this guidance, the Merger was accounted for as a reverse recapitalization, with no goodwill or intangible assets recognized. The net assets of the combined entity are stated at historical cost, and the shares and per-share information presented in the consolidated financial statements were retroactively adjusted to reflect the exchange ratio established in the merger agreement.

Because the accounting for the Merger and reverse recapitalization involved estimates that relied on management's assumptions regarding market conditions, valuation methodologies, and the interpretation of complex contractual terms, it represents a critical accounting estimate.

Recently Adopted Accounting Standards

A discussion of recently issued accounting standards applicable to the Company is described in Note 2, Recent Accounting Pronouncements, in the notes to our audited consolidated financial statements as of and for the years ended December 31, 2025 and 2024 contained elsewhere in this annual report.

Emerging Growth Company Status

In April 2012, the JOBS Act was enacted. Section 107(b) of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. The Company has elected to take advantage of the extended transition period to comply with new or revised accounting standards and to adopt certain of the reduced disclosure requirements available to emerging growth companies. As a result of the accounting standards election, the Company will not be subject to the same implementation timing for new or revised accounting standards as other public companies that are not emerging growth companies which may make comparison of its financials to those of other public companies more difficult.

The Company expects to retain its emerging growth company status until the earliest of:

- The end of the fiscal year in which its annual revenues exceed $1.2 billion;
- The end of the fiscal year in which the fifth anniversary of its public company registration has occurred;
- The date on which it has issued more than $1.0 billion in non-convertible debt during the previous three-year period; and
- The date on which it qualifies as a large accelerated filer.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM
To the Stockholders and Board of Directors of Terrestrial Energy Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Terrestrial Energy Inc. (the "Company"), as of December 31, 2025 and 2024, and the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity (deficit), and cash flows for each of the years in the two-year period ended December 31, 2025, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2025 and 2024, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2025, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal controls over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ UHY LLP

We have served as the Company's auditor since 2025

Melville, New York
March 30, 2026

Terrestrial Energy Inc.
Consolidated Balance Sheets
(Expressed in U.S. Dollars)

	December 31, 2025	December 31, 2024
ASSETS		
Current assets		
Cash and cash equivalents	$ **97,164,391**	$ 3,021,795
Short-term investments	**200,626,281**	—
Prepaid expenses and other current assets	**1,769,264**	270,091
Total current assets	**299,559,936**	3,291,886
Property and equipment, net	**834,795**	770,548
Intangible assets, net	**707,749**	616,972
Right-of-use assets	**1,814,333**	622,450
Other assets	**63,611**	29,748
Total Assets	$ **302,980,424**	$ 5,331,604
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities		
Accounts payable and accrued expenses	$ **5,500,946**	$ 748,867
Operating lease liabilities, current	**383,223**	114,507
Finance lease liabilities, current	**33,362**	140,796
Related party advance (Note 12)	—	100,000
Total current liabilities	**5,917,531**	1,104,170
Convertible notes, net of debt discount	—	13,708,832
Accrued interest on convertible notes	—	266,554
Convertible notes, net of debt discount – related parties (Note 11)	—	2,371,994
Accrued interest on convertible notes – related parties (Note 11)	—	57,116
Operating lease liabilities, noncurrent	**1,600,672**	598,493
Finance lease liabilities, noncurrent	**55,979**	49,044
Deferred tax liabilities, net	—	665,953
Total liabilities	**7,574,182**	18,822,156
Commitments and Contingencies (Note 18)		
Stockholders' Equity (Deficit)		
Common shares, $0.0001 par value; 500,000,000 authorized shares; 81,771,422 and 39,159,901 shares issued and outstanding as of December 31, 2025 and 2024, respectively	**8,177**	3,916
Exchangeable shares, $0.0001 par value; 24,011,017 shares issued and outstanding as of December 31, 2025 and December 31, 2024	**2,401**	2,401
Additional paid-in-capital	**418,814,641**	82,774,184
Accumulated deficit	**(124,624,883)**	(96,608,242)
Accumulated other comprehensive income	**1,205,906**	337,189
Total stockholders' equity (deficit)	**295,406,242**	(13,490,552)
Total liabilities and stockholders' equity (deficit)	$ **302,980,424**	$ 5,331,604

The accompanying notes are an integral part of these consolidated financial statements.

Terrestrial Energy Inc.
Consolidated Statements of Operations and Comprehensive Loss
For the years ended December 31, 2025 and 2024
(Expressed in U.S. Dollars)

	2025	2024
REVENUE		
Engineering services revenue	$ —	$ 248,357
TOTAL REVENUE	—	248,357
OPERATING EXPENSES		
Research and development costs	**9,767,996**	5,176,932
General and administrative	**14,266,775**	4,168,576
Depreciation and amortization	**1,161,704**	1,256,391
Total Operating Expenses	**25,196,475**	10,601,899
OPERATING LOSS	**(25,196,475)**	(10,353,542)
OTHER (EXPENSE) INCOME		
Government grants	**323,496**	708,004
Interest expense	**(3,900,997)**	(1,223,929)
Interest expense – related party (Note 12)	**(438,214)**	(88,906)
Loss on extinguishment of debt	—	(1,183,289)
Interest and dividend income	**1,270,713**	59,860
Foreign exchange gain (loss)	**(57,214)**	617,357
OTHER (EXPENSE) INCOME	**(2,802,216)**	(1,110,903)
Net loss before income tax	**(27,998,691)**	(11,464,445)
Income tax expense	**(17,950)**	(20,965)
Net loss	**(28,016,641)**	(11,485,410)
Loss per common share, basic and diluted	$ **(0.39)**	$ (0.19)
Weighted-Average Shares of Common Shares Outstanding, Basic and diluted	**71,646,985**	60,414,175
Net loss	$ **(28,016,641)**	$ (11,485,410)
Other comprehensive (loss) income net of tax:		
Foreign currency translation adjustments	**(260,731)**	395,525
Change in unrealized gains on short-term investments	**1,129,448**	—
Comprehensive loss	$ **(27,147,924)**	$ (11,089,885)

The accompanying notes are an integral part of these consolidated financial statements.

Terrestrial Energy Inc.
Consolidated Statements of Changes in Stockholders' Equity (Deficit)
For the years ended December 31, 2025 and 2024
(Expressed in U.S. Dollars)

	Preferred Shares		Common Shares		Preferred Exchangeable Shares		Common Exchangeable Shares		Exchangeable Shares		Additional Paid-In-	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Terrestrial Energy Inc. Stockholders' Equity (Deficit)	Attributable to Non-Controlling Interest	Total
	Shares*	Amount*	Shares*	Amount*	Shares*	Amount*	Shares*	Amount*	Shares	Amount	Capital					
Balance, January 1, 2024, as previously reported	137,672	138	675,281	675	6,200	6	530,924	531	—	—	79,769,519	(58,336)	(85,122,832)	(5,410,299)	534,611	(4,875,688
Retrospective application of recapitalization (Note 3)	(137,672)	(138)	35,666,101	2,959	(6,200)	(6)	(530,924)	(531)	24,011,017	2,401	(4,685)	—	—	—	—	—
Adjusted balance - January 1, 2024	—	$ —	36,341,382	$ 3,634	—	$ —	—	$ —	24,011,017	$ 2,401	79,764,834	$ (58,336)	$ (85,122,832)	$ (5,410,299)	$ 534,611	$ (4,875,688
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	670,243	—	—	670,243	—	670,243
Acquisition of non-controlling interest	—	—	2,818,520	282	—	—	—	—	—	—	534,329	—	—	534,611	(534,611)	—
Issuance of warrants in connection with convertible notes, net of tax	—	—	—	—	—	—	—	—	—	—	2,006,982	—	—	2,006,982	—	2,006,982
Loss on extinguishment of debt from related parties	—	—	—	—	—	—	—	—	—	—	(202,204)	—	—	(202,204)	—	(202,204
Currency translation adjustments	—	—	—	—	—	—	—	—	—	—	—	395,525	—	395,525	—	395,525
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(11,485,410)	(11,485,410)	—	(11,485,410
Balance, December 31, 2024	—	$ —	39,159,901	$ 3,916	—	$ —	—	$ —	24,011,017	$ 2,401	82,774,184	$ 337,189	$ (96,608,242)	$ (13,490,552)	$ —	$ (13,490,552
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	3,103,702	—	—	3,103,702	—	3,103,702
Issuance of Series A-1 preferred shares for cash*	—	—	2,812,708	282	—	—	—	—	—	—	25,796,919	—	—	25,797,201	—	25,797,201
Issuance of warrants in connection with convertible notes, net of tax	—	—	—	—	—	—	—	—	—	—	2,594,531	—	—	2,594,531	—	2,594,531
Shares issued upon exercise of warrants	—	—	2,011,632	201	—	—	—	—	—	—	4,499,799	—	—	4,500,000	—	4,500,000
Shares issued upon exercise of options	—	—	67,054	7	—	—	—	—	—	—	129	—	—	136	—	136
Merger financing	—	—	28,742,610	2,874	—	—	—	—	—	—	243,064,103	—	—	243,066,977	—	243,066,977
Transaction costs	—	—	—	—	—	—	—	—	—	—	(22,305,729)	—	—	(22,305,729)	—	(22,305,729
Conversion of convertible notes to Common Shares	—	—	3,977,517	397	—	—	—	—	—	—	29,787,503	—	—	29,787,900	—	29,787,900
Issuance of shares to PIPE investors	—	—	5,000,000	500	—	—	—	—	—	—	49,499,500	—	—	49,500,000	—	49,500,000
Currency translation adjustments	—	—	—	—	—	—	—	—	—	—	—	(260,731)	—	(260,731)	—	(260,731
Change in unrealized gains on short-term investments		—	—	—	—	—	—	—	—	—	—	1,129,448	—	1,129,448	—	1,129,448
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(28,016,641)	(28,016,641)	—	(28,016,641
Balance, December 31, 2025	-	$ —	81,771,422	$ 8,177	—	$ —	—	$ —	24,011,017	$ 2,401	418,814,641	$ 1,205,906	$(124,624,883)	$ 295,406,242	$ —	$295,406,242

* Share amounts have been retroactively restated to give effect to the Business Combination.

The accompanying notes are an integral part of these consolidated financial statements.

Terrestrial Energy Inc.
Consolidated Statements of Cash Flows
For the years ended December 31, 2025 and 2024
(Expressed in U.S. Dollars)

	2025	2024
Cash flows from operating activities		
Net loss	$ **(28,016,641)**	$ (11,485,410)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	**1,161,704**	1,256,391
Loss on extinguishment of debt	**—**	1,183,289
Amortization of debt discount	**2,137,984**	802,573
Stock-based compensation	**3,103,702**	670,243
Unrealized foreign currency transaction gain	**(807,193)**	(812,849)
Noncash lease expense	**471,362**	152,086
Deferred income taxes	**15,401**	(15,401)
Changes in operating assets and liabilities		
Accounts receivable	**—**	19,163
Prepaid expenses and other current assets	**(1,750,631)**	166,315
Accounts payable and accrued expenses	**5,366,309**	(196,299)
Accrued interest	**1,847,554**	152,571
Accrued interest - related party	**326,047**	37,848
Operating lease payments	**(328,510)**	(133,454)
Net cash used in operating activities	**(16,472,912)**	(8,202,934)
Cash flows from investing activities		
Purchases of intangible assets	**(86,150)**	(54,404)
Purchases of property and equipment	**(1,055,307)**	(607,866)
Purchase of short-term investments	**(199,496,832)**	—
Net cash used in investing activities	**(200,638,289)**	(662,270)
Cash flows from financing activities		
Proceeds from issuance of convertible notes	**9,335,000**	6,563,000
Proceeds from issuance of convertible notes – related parties	**1,650,000**	650,000
Proceeds from Series A-1 preferred shares issuance	**25,797,201**	—
Proceeds from the exercise of stock options for common shares	**136**	—
Proceeds from warrant exercise for common shares	**4,500,000**	—
Proceeds from issuance of shares to PIPE investors	**49,500,000**	—
Proceeds from merger financing	**243,066,977**	—
Payment of merger and recapitalization related transaction costs	**(22,305,729)**	—
Proceeds from related party advances	**—**	100,000
Repayment of finance lease liabilities	**(149,138)**	(58,732)
Net cash provided by financing activities	**311,394,447**	7,254,268
Effect of exchange rate changes on cash and cash equivalents	**(140,650)**	32,201
Increase (decrease) in cash and cash equivalents during the year	**94,142,596**	(1,578,735)
Cash and cash equivalents, beginning of year	**3,021,795**	4,600,530
Cash and cash equivalents, end of year	$ **97,164,391**	$ 3,021,795
Supplemental cash flow information		
Interest paid	$ **—**	$ 514,431
Supplemental noncash investing and financing activities		
Conversion of convertible notes to common shares	$ **29,787,900**	$ —
Initial recognition of finance leases	$ **42,590**	$ —
Recognition of warrants in connection with convertible notes, net of tax	$ **2,594,531**	$ 2,006,982
Related party debt extinguishment	$ **—**	$ 202,204
Acquisition of non-controlling interest	$ **—**	$ 534,611

The accompanying notes are an integral part of these consolidated financial statements.

1. Organization and Description of Business

Terrestrial Energy Inc. (the "Company" or "TEI"), a Company incorporated under the laws of the State of Delaware, is a Company developing Generation IV nuclear technology, as defined by the Generation IV International Forum. The Company is committed to delivering reliable, resilient, emission-free, and cost-competitive energy by developing and deploying its patented Integral Molten Salt Reactor ("IMSR") for commercial operation.

2024 Redomestication

Prior to April 5, 2024, the Company was incorporated under the Business Corporations Act of Ontario and was domiciled in Canada. On December 13, 2023 the Company entered into an agreement with Terrestrial Energy Delaware Inc. ("DelawareCo") and Terrestrial Energy Canada (Exchange) Inc. (the "Arrangement Agreement") pursuant to which TEI completed a corporate redomicile under the laws of the State of Delaware by way of a statutory plan of arrangement under Section 182 of the Business Corporations Act (Ontario) (the "Arrangement") that provided for, among other things:

(a) the issuance to holders of Class A Common Shares, at their election and subject to applicable eligibility criteria, for their Class A Common Shares of either: (i) shares of common stock of Terrestrial Energy Delaware Inc., par value $0.001 per share (the "DelawareCo Common Shares"), a corporation existing under the laws of the State of Delaware ("DelawareCo"), on a one-for-one basis; or (ii) common exchangeable shares in the capital of Terrestrial Energy Canada (Exchange) Inc. (the "Common Exchangeable Shares"), a corporation existing under the laws of the Province of Ontario ("ExchangeCo") and a direct wholly-owned subsidiary of Terrestrial Energy Canada (Call) Inc., a corporation existing under the laws of the Province of Ontario and a direct, wholly-owned subsidiary of DelawareCo ("CallCo"), on a one-for-one basis;

(b) the issuance to holders of Series 4 Preferred Shares, at their election and subject to applicable eligibility criteria, for their Series 4 Preferred Shares of either: (i) shares of Series A preferred stock in the capital of DelawareCo, par value $0.001 per share (the "DelawareCo Series A Preferred Shares"), on a one-for-one basis, or (ii) Preferred Exchangeable Shares in the capital of ExchangeCo on a one-for-one basis;

(c) the issuance to holders of Exchangeable Shares of voting shares in the Company proportionate to their beneficial ownership interest;

(d) the entry by DelawareCo, CallCo and ExchangeCo into the Exchange and Support Agreement (the "Exchange and Support Agreement");

(e) the exchange of outstanding warrants issued by Terrestrial Energy (Ontario) Inc. ("TEON") for warrants issued by TEI; and

(f) the exchange of options exercisable for TEON securities for options exercisable for TEI securities.

The Arrangement became effective on April 5, 2024. Based on an assessment of the ownership and control of the Company both prior to and after the reorganization, the reorganization was accounted for as a transaction under common control. As a result, the assets and liabilities of the transferred entities were recognized at their carrying amounts at the date of transfer. In addition, the reorganization has been treated with retrospective application as of the beginning of the reporting period.

2025 Merger Agreement

On October 28, 2025 (the "Closing Date"), Terrestrial Energy Inc. (formerly HCM II Acquisition Corp. "HCM II") consummated the transactions set forth by the Business Combination Agreement dated March 26, 2025 with Terrestrial Energy Development Inc. (formerly Terrestrial Energy, Inc.) ("TEDI") and Merger Sub (the "Business Combination"). Upon closing, Merger Sub merged with and into TEDI, with TEDI surviving as a wholly owned subsidiary of Terrestrial Energy Inc. (collectively, the "Transactions"). Under the terms of the Agreement, TEDI's outstanding shares of common stock and convertible notes were exchanged for shares in Terrestrial Energy Inc. at an exchange ratio specified in the Business Combination Agreement.

The Business Combination was accounted for as a reverse recapitalization in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP"). Under this method of accounting, TEDI was deemed to be the accounting acquirer for financial reporting purposes. Additional information regarding the accounting is included in Note 3, "Reverse Recapitalization".

The Business Combination closed on Tuesday, October 28, 2025, with trading commencing on the Nasdaq Stock Market LLC ("Nasdaq") on Wednesday, October 29, 2025.

Upon closing of the transaction, the combined company became known as Terrestrial Energy Inc. and its securities and warrants were listed on Nasdaq under the symbols "IMSR" and "IMSRW", respectively.

2. Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

These consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and are the consolidated financial statements of the Company and its subsidiaries, each of which are controlled, and are based on the financial position and results of operations of the Company as a standalone company. Intercompany balances and transactions between consolidated entities have been eliminated.

Emerging Growth Company Status

The Company is expected to be an emerging growth company, as defined in Section 2(a) of the Securities Act of 1933, as amended, (the "Securities Act"), as modified by the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act, until such time as to those standards apply to private companies. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it (i) is no longer an emerging growth company or (ii) affirmatively and irrevocably opts out of the extended transition period provided in the JOBS Act. As a result, these consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make certain estimates, judgments and assumptions. The Company believes that the estimates, judgments and assumptions made when accounting for items and matters such as, but not limited to, revenue recognition, determination of deferred income for government assistance, VIE determination, useful life of property and equipment and intangible assets, fair value of stock options granted, recognition of deferred income tax assets, determination of incremental borrowing rate used to measure lease liabilities, warrants, embedded derivatives in convertible notes, and estimates related to accounting for the merger and reverse recapitalization, are reasonable based on information available at the time they are made. These estimates, judgments and assumptions can affect the reported amounts of assets and liabilities as of the date of the consolidated financial statements, as well as amounts reported on the statements of operations during the periods presented. Actual results could differ from those estimates.

Variable Interest Entities

The Company determines at the inception of each arrangement whether an entity in which the Company holds an investment or in which the Company has other variable interests is considered a variable interest entity ("VIE"). The Company consolidates VIEs when it is the primary beneficiary. The primary beneficiary of a VIE is the party that meets both of the following criteria: (1) has the power to make decisions that most significantly affect the economic performance of the VIE and (2) has the obligation to absorb losses or the right to receive benefits that in either case could potentially be significant to the VIE.

In 2014, the Company agreed to establish Terrestrial Energy USA, Inc. ("TEUSA"), a Delaware corporation, which was initially majority owned by SWH Capital LLC ("SWH"), an entity owned and controlled by the Chief Executive Officer of the Company, with the minority interest owned by the Company. TEUSA's purpose was to be an independent entity to commercialize IMSR technology for U.S. market deployment with the support of the U.S. Federal and State governments. The Company and TEUSA had several officers and directors in common. Under mutual licensing agreements between the companies, the Company would receive revenue royalties in the event that the technology was successfully commercialized in the U.S. The Company concluded that the TEUSA was a Variable Interest Entity as defined by ASC 810.

On December 23, 2024, the Company entered into an agreement and plan of merger providing for the merger of TEUSA (the "TEUSA Merger") into a wholly owned subsidiary of the Company. Immediately prior to the TEUSA Merger, TEUSA was 70.1% owned by SWH and 29.9% owned by the Company. The effect of the TEUSA Merger is that the Company owns 100% of TEUSA as of December 23, 2024. In accordance with ASC 810, as the Company maintained controlling financial interest, the acquisition of the noncontrolling interest was accounted for as an equity transaction, consistent with ASC 810-10-45-23.

Foreign Currency

The Company's reporting currency is the United States dollar ("USD"). The functional currency of each subsidiary is determined by the currency of the primary economic environment in which the entity operates. The functional currency of TEON is the Canadian dollar ("CAD"), that of Terrestrial Energy Limited, a company incorporated under the laws of England and Wales, the Pound Sterling and that of Terrestrial Energy USA, Inc., the USD. Assets and liabilities of the operating subsidiaries are translated at the spot rate in effect at the applicable reporting date. Revenues and expenses of the operating subsidiaries are translated at the average exchange rates in effect during the applicable period. The resulting foreign currency translation adjustment is recorded as Accumulated other comprehensive income (loss), which is reflected as a separate component of Stockholders' Equity (Deficit). The functional currency is translated into U.S. dollars for balance sheet accounts using currency exchange rates in effect as of the balance sheet date, and for revenue and expense accounts using a weighted-average exchange rate during the fiscal year. The transactions in foreign currency (that is a different currency than the functional currency of the entity) are converted at the exchange rate prevailing to the date of the transaction. The assets and liabilities denominated in foreign currencies are evaluated in the current period on the date of the closing or at the opening rate, when applicable. The translation adjustments are deferred as a separate component of equity in "Accumulated other comprehensive income (loss)". Gains or losses resulting from transactions denominated in foreign currencies and intercompany debt that is not of a long-term investment nature are included in foreign exchange gain (loss) in the consolidated statements of operations and comprehensive loss.

Liquidity and Going Concern

Historically, the Company's primary sources of liquidity have been cash flows from private fundraising offerings from related parties or other investors and other financing activities to fund operations. For the years ended December 31, 2025 and 2024, the Company reported operating losses of $25.2 and $10.4 million, respectively, and negative cash flows from operations of $16.5 and $8.2 million, respectively. As of December 31, 2025, the Company had $97.2 million in cash and cash equivalents and $200.6 million in short-term investments. The Company had net working capital of $293.6 million and an accumulated deficit of $124.6 million.

The Company commenced trading on Nasdaq on October 29, 2025, after completing the business combination with HCM II on October 28, 2025. As outlined further below, after completing the transaction the Company received in excess of $292 million in gross proceeds before expenses, which included $50 million common stock private investment ("PIPE") and approximately $242 million from HCM II's trust account following redemptions of less than 1%. Based on this financing, the Company believes that it has sufficient liquidity to support operations for at least the next twelve months following the date of issuance of the consolidated financial statements. This projection is based on the Company's current expectations regarding future sales, cost structure, cash burn rate and other operating assumptions.

Cash, Cash Equivalents and Short-Term Investments

Cash equivalents represent short-term, highly liquid investments, which are readily convertible to cash and have maturities of 90 days or less at time of purchase. The Company's cash and cash equivalents are held with major financial institutions and earn interest at the prevailing rate for business operating accounts.

Short-term investments consist of marketable securities with original maturities greater than three months but less than one year at the time of purchase. These investments may include U.S Treasury securities, government agency securities, commercial paper, and other highly rated debt instruments. Short-term investments are subject to a periodic impairment review. If the Company does not intend to sell and it is not more likely than not that it will be required to sell the investment prior to recovery of its amortized cost basis, it will determine whether a decline in fair value below the amortized cost basis is due to credit-related factors. The credit loss is measured as the amount by which the investment's amortized cost basis exceeds the estimate of the present value of cash flows expected to be collected, up to the difference between the amortized cost basis and the fair value. Impairment is assessed at the individual investment level. Credit-related impairment is recognized as an allowance in the consolidated balance sheets with a corresponding adjustment to interest and dividend income, in the consolidated statements of operations and comprehensive loss. Any impairment that is not credit-related is recognized in accumulated other comprehensive income in the consolidated balance sheets.

The Company's short-term investments have been classified and accounted for as available-for-sale. The cost of short-term investments is adjusted for accretion of premiums and amortization of discounts to maturity. Such accretion and amortization, as well as interest and dividends, are included in interest and dividend income. The cost of investments sold is determined using the specific identification method. Unrealized gains and losses on short-term investments classified as available-for-sale are recognized in other comprehensive income on the consolidated statements of comprehensive loss.

Property and Equipment, Net

Property and equipment is stated at cost or deemed at cost less accumulated amortization. Property and equipment is amortized monthly over its useful life on a straight-line basis at the following rates:

Computer equipment	2 – 4 years
Computer software	1 – 3 years
Equipment	5 years
Furniture and fixtures	5 years

Leasehold improvements are amortized over the shorter of their useful life or remaining lease term. Expenditures for repairs and maintenance, which do not improve or extend the life of the assets, are expensed as incurred.

Concentration of Credit Risks

The Company's cash accounts in a financial institution may at times exceed the Federal Depository Insurance coverage of $250,000. No losses have been incurred to date on any deposit balance.

Intangible Assets, Net

Intangible assets consist of intellectual property rights and patents and trademarks related to the IMSR technology. Intangible assets acquired separately are measured on initial recognition at cost. Internally generated intangible assets are initially recognized if they meet certain recognition criteria. Development expenditures not satisfying the above criteria, and expenditure on the research phase of internal projects, are expensed as incurred and are included in research and development costs in the consolidated statement of operations and comprehensive loss.

The Company amortizes intangible assets with finite lives over their estimated useful lives of 20 years using a straight-line amortization method, which the Company believes is the best estimate to reflect the pattern in which the economic benefits of the intangible assets are consumed or otherwise realized and reviews them for impairment whenever an impairment indicator exists.

Impairment of Long-lived Assets

Management reviews each asset or asset group for impairment whenever events or circumstances indicate that the carrying value of an asset or asset group may not be recoverable. The Company measures the recoverability of the assets by comparing the carrying amount of such asset or asset group to the future undiscounted cash flows it expects the asset or asset group to generate. If the Company considers the asset or asset group to be impaired, the impairment to be recognized equals the amount by which the carrying value of the asset or asset group exceeds its fair value. No impairment losses were recorded by the Company during the years ended December 31, 2025 and 2024.

Revenue Recognition

The Company determines revenue recognition through the following steps: a) identification of the contract with a customer, b) identification of the performance obligations in the contract, c) determination of the transaction price, d) allocation of the transaction price to the performance obligations in the contract and e) recognition of revenue when the Company satisfies a performance obligation.

The Company carries out engineering services for customers with revenue recognized typically on an over time basis. The Company's contracts with the customer are to provide a significant service of integrating a complex set of tasks and components into a single deliverable. Consequently, the entire contract is accounted for as one performance obligation. The Company recognizes revenue from engineering services over time using an input method as performance obligations have no alternative use for the Company and the contracts would require payment to be received for the time and effort spent by the Company on progressing the contracts in the event of the customer cancelling the contract prior to completion for any reason other than the Company's failure to perform its obligations under the contract. Specifically, labor hours incurred are used to measure progress towards complete satisfaction of the service. This is considered a faithful depiction of the transfer of services as the contracts are initially priced on the basis of anticipated hours to complete the projects and, therefore, also represents the amount to which the Company would be entitled based on its performance to date.

The Company defers incremental costs of obtaining a customer contract and amortizes the deferred costs over the period that the related revenue is recognized. The Company had no material incremental costs to obtain customer contracts in any period presented.

The Company intends to disaggregate revenue into categories to provide useful information to the users of the consolidated financial statements about the nature, amount, timing, and uncertainty of revenue and cash flows as the Company's customer base expands.

Leases

All leases are accounted for by recognizing a right-of-use asset and a lease liability except for leases with a duration of 12 months or less.

Lease liabilities are measured at the present value of the contractual payments due to the lessor over the lease term, with the discount rate determined by reference to the rate inherent in the lease unless this is not readily determinable, in which case the Company's incremental borrowing rate on commencement of the lease is used. Variable lease payments are only included in the measurement of the lease liability if they depend on an index or rate. In such cases, the initial measurement of the lease liability assumes the variable element will remain unchanged throughout the lease term. Other variable lease payments are expensed in the period to which they relate.

On initial recognition, the carrying value of the lease liability also includes:

- amounts expected to be payable under any residual value guarantee;
- the exercise price of any purchase option granted in favor of the Company if it is reasonably certain to assess that option;
- any penalties payable for terminating the lease, if the term of the lease has been estimated on the basis of termination option being exercised.

Right of use assets are initially measured at the amount of the lease liability, reduced for any lease incentives received, and increased for:

- lease payments made at or before commencement of the lease;
- initial direct costs incurred; and
- the amount of any provision recognized where the Company is contractually required to dismantle, remove or restore the leased asset.

Subsequent to initial measurement lease liabilities increase as a result of interest charged at a constant rate on the balance outstanding and are reduced for lease payments made. Right-of-use assets are amortized on a straight-line basis over the remaining term of the lease.

When the Company revises its estimate of the term of any lease, it adjusts the carrying amount of the lease liability to reflect the payments to make over the revised term, which are discounted using a revised discount rate. The carrying value of lease liabilities is similarly revised when the variable element of future lease payments dependent on a rate or index is revised, except the discount rate remains unchanged. In both cases, an equivalent adjustment is made to the carrying value of the right-of-use asset, with the revised carrying amount being amortized over the remaining (revised) lease term. If the carrying amount of the right-of-use asset is adjusted to zero, any further reduction is recognized in profit or loss.

Fair Value Measurements

Fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The authoritative guidance establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are from sources independent of the Company. Unobservable inputs reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The categorization of financial assets and liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The hierarchy is broken down into three levels:

- Level 1: Inputs are quoted prices in active markets for identical assets or liabilities.
- Level 2: Inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly.
- Level 3: Inputs are unobservable for the asset or liability.

The carrying amounts of certain financial instruments, such as cash equivalents, prepaid expenses and other current assets, accounts payable and accrued expenses, approximate fair value due to their relatively short maturities. The Company's short-term investments are classified as Level 1 (as described in Note 7).

Convertible Notes

The Company may enter into convertible notes, certain of which contain, predominantly, fixed rate conversion features, whereby the outstanding principal and accrued interest may be converted by the holder, into common shares at a fixed discount to the market price of the common stock at the time of conversion. The Company's convertible notes outstanding represent a financial instrument other than an outstanding share that embodies a conditional obligation that the issuer must or may settle by issuing a variable number of its equity shares. The Company records the convertible note liability at its fixed monetary amount by measuring and recording a premium, as applicable, on the convertible notes date in accordance with ASC Topic 480, Distinguishing Liabilities from Equity ("ASC 480").

Warrants

The Company reviews the terms of warrants to purchase its common stock to determine whether warrants should be classified as liabilities or stockholders' deficit in its consolidated balance sheets. In order for a warrant to be classified in stockholders' deficit, the warrant must be (i) indexed to the Company's equity and (ii) meet the conditions for equity classification.

If a warrant does not meet the conditions for stockholders' deficit classification, it is carried on the consolidated balance sheets as a warrant liability measured at fair value, with subsequent changes in the fair value of the warrant recorded in other income (expense) in the consolidated statements of operations and comprehensive loss. If a warrant meets both conditions for equity classification, the warrant is initially recorded, at its relative fair value on the date of issuance, in stockholders' deficit in the consolidated balance sheets, and the amount initially recorded is not subsequently remeasured at fair value.

Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settles. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. In addition, a valuation allowance is established to reduce any deferred tax asset for which it is determined that is it more likely than not that some portion of the deferred tax asset will not be realized.

During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. Accounting for income taxes requires a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if available evidence indicates it is more likely than not that the tax position will be fully sustained upon review by taxing authorities, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount with a greater than 50 percent likelihood of being realized upon ultimate settlement. For tax positions that are 50 percent or less likely of being sustained upon audit, the Company does not recognize any portion of that benefit in the financial statements.

Stock-Based Compensation

The Company accounts for stock-based compensation arrangements granted to employees in accordance with ASC 718, "Compensation: Stock Compensation", by measuring the grant date fair value of the award and recognizing the resulting expense over the period during which the employee is required to perform service in exchange for the award. Equity-based compensation expense is only recognized for awards subject to performance conditions if it is probable that the performance condition will be achieved. The Company accounts for forfeitures when they occur.

The Company uses the Black-Scholes option pricing model to determine the grant date fair value of its stock options granted. This model requires the Company to estimate the expected volatility and the expected term of the stock options, which are highly complex and subjective variables. The Company uses an expected volatility of its stock price during the expected life of the options that is based on the historical performance of the Company's stock price as well as including an estimate using similar companies. The expected term is computed using the simplified method as the Company's best estimate given its lack of actual exercise history. The Company has selected a risk-free rate based on the implied yield available on U.S. Treasury securities with a maturity equivalent to the expected exercise term of the stock option.

The Company grants restricted stock units ("RSUs") to employees and non-employee directors as part of its equity-based compensation program. RSUs represent the right to receive shares of the Company's common stock upon vesting, subject to specified service. RSUs do not have voting or dividend rights prior to the issuance of shares, except for dividend equivalents if and when declared, as applicable under the terms of the award agreements.

The Company accounts for RSUs in accordance with ASC 718, Compensation—Stock Compensation. Compensation expense for RSUs is measured at the grant-date fair value, which is equal to the closing market price of the Company's common stock on the date of grant. For RSUs subject solely to service-based vesting conditions, compensation expense is recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the award. The Company accounts for forfeitures as they occur.

Upon vesting, each RSU is converted into one share of the Company's common stock. The Company may withhold shares to satisfy statutory tax withholding requirements. The issuance of shares upon vesting results in an increase to common stock and additional paid-in capital.

Advertising

Advertising costs are expensed as incurred and are recognized as a component of general and administrative expenses on the consolidated statement of operations and comprehensive loss. Advertising costs expensed were approximately $0.1 million and $0.2 million for the years ended December 31, 2025 and 2024, respectively.

Government Grants

Government grants are recognized where there is reasonable assurance that the grant will be received, and all attached conditions will be complied with. When the grant relates to an expense item, the grant is recognized in other income as government grants, deferred over the period necessary to match the grant on a systematic basis to the costs that it is intended to compensate. Where the grant relates to an asset, it is recognized as deferred income, and then recognized as income over the useful life of the related depreciable asset.

Research and Development

Research and development expenditures are expensed as incurred for designing and engineering products, including the costs of developing design tools. All research and development costs related to product development are expensed as incurred.

Research and Development Tax Credits

Research and development expenditures are expensed as incurred. The Company claims investment tax credits as a result of incurring scientific research and experimental development expenditures. Investment tax credits are recognized when the related expenditures are incurred, and there is reasonable assurance of their realization. Management has made a number of estimates and assumptions in determining the expenditures eligible for the investment tax credit claim. The Company's claim is subject to audit by Canada Revenue Agency who may disallow all or a portion of the amount recorded. For the years ended December 31, 2025 and 2024, the Company earned $0.0 million and $0.2 million of research and development tax credits.

Net Loss Per Share

Basic and diluted net loss per share attributable to common stockholders is presented in conformity with the two-class method required for participating securities. The two-class method determines net income (loss) per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income (loss) available to common stockholders for the period to be allocated between common and participating securities based upon their respective rights to shares in undistributed earnings as if all income (loss) for the period had been distributed. The Company's preferred stock does not contractually require the holders of such stock to participate in losses of the Company. Accordingly, in periods in which the Company reports a net loss attributable to common stockholders, such losses are not allocated to such participating securities.

Basic net loss per share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of common stock outstanding during the period, without consideration of potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common stock and potentially dilutive securities outstanding for the period. For purposes of this calculation, stock options, warrants, and restricted stock units have been excluded from the calculation of diluted net loss per share attributable to common stockholders as their effect is anti-dilutive for all periods presented.

Segment reporting

The Company has a single operating and reportable segment. The Company's Chief Executive Officer ("CEO") is its Chief Operating Decision Maker ("CODM"), who reviews financial information presented on a consolidated basis for the purposes of making operating decisions, allocating resources and evaluating financial performance.

Recent Accounting Pronouncements

In December 2023, the FASB issued ASU No. 2023-09 (Topic 740), Improvements to Income Tax Disclosures, which enhances the transparency and decision usefulness of income tax disclosures. The amendments in ASU 2023-09 are effective for annual periods beginning after December 15, 2024. The Company has adopted this guidance on a retrospective basis, which did not have an impact on its financial position, results of operations, or cash flows, although it did result in expanded disclosures which are included in Note 16 of the consolidated financial statements.

Issued in November 2024, ASU 2024-03, Disaggregation of Income Statement Expenses (Subtopic 220-40), requires the disaggregated disclosure of specific expense categories, including purchases of inventory, employee compensation, depreciation, and amortization, within relevant income statement captions. This ASU also requires disclosure of the total amount of selling expenses along with the definition of selling expenses. The ASU is effective for annual periods beginning after December 15, 2026, and interim periods within fiscal years beginning after December 15, 2027. Adoption of this ASU can either be applied prospectively to consolidated financial statements issued for reporting periods after the effective date of this ASU or retrospectively to any or all prior periods presented in the consolidated financial statements. The Company is currently evaluating the impact this ASU will have on its consolidated financial statements and related disclosures.

In March 2025, the FASB issued ASU No. 2025-03 (Topics 805 and 810), Determining the Accounting Acquirer in the Acquisition of a Variable Interest Entity. The ASU modifies the guidance for identifying the accounting acquirer in business combinations involving a variable interest entity (VIE) by requiring entities to evaluate the existing business combination indicators when the VIE is a business and equity interests are exchanged. The ASU is effective on a prospective basis for annual reporting periods beginning after December 15, 2026. The Company is currently evaluating the impact this ASU will have on its consolidated financial statements and related disclosures.

In July 2025, the FASB issued ASU 2025-05, Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses for Accounts Receivable and Contract Assets. The ASU introduces a practical expedient that allows entities to assume current economic conditions remain unchanged over the life of an asset when estimating expected credit losses for current accounts receivable and current contract assets arising from transactions under ASC 606, Revenue from Contracts with Customers. The guidance is effective for annual periods beginning after December 15, 2025, and interim periods within those annual periods. Early adoption is permitted. The amendments are applied prospectively to eligible assets existing on or arising after the date of adoption. The Company does not currently have accounts receivable or contract assets arising from ASC 606 transactions. Accordingly, the adoption of ASU 2025-05 is not expected to have a material impact on the Company's financial position, results of operations, or cash flows. The Company will continue to monitor future activity and evaluate the applicability of this guidance if accounts receivable or contract assets arise in future periods.

In December 2025, the FASB issued ASU 2025-10, "Accounting for Government Grants Received by Business Entities" ("ASU 2025-10"), which establishes the accounting and presentation for government grants received by a business entity. ASU 2025-10 is effective for annual reporting periods beginning after December 15, 2028, and interim reporting periods within those annual reporting periods. Early adoption is permitted. ASU 2025-10 permits an entity to apply the new guidance using a modified prospective basis, a modified retrospective basis, or a full retrospective basis. The Company is currently evaluating the impact from ASU 2025-10 on its consolidated financial statements.

In December 2025, the FASB issued ASU 2025-11, Interim Reporting (Topic 270): Narrow-Scope Improvements (ASU 2025-11). ASU 2025-11 is intended to improve the clarity and navigability of interim reporting guidance by (i) specifying the required form and content of interim financial statements, (ii) consolidating and organizing interim disclosure requirements across the Codification, and (iii) introducing a disclosure principle requiring entities to describe events occurring after the end of the most recent annual reporting period that have a material impact on the entity. ASU 2025-11 is effective for public business entities for fiscal years beginning after December 15, 2027, including interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the impact of adopting ASU 2025-11 on its consolidated financial statements and related disclosures.

In December 2025, the FASB issued ASU No. 2025-12, Codification Improvements ("ASU 2025-12"). ASU 2025-12 adds clarification, corrects errors, or makes minor improvements. ASU 2025-12 is effective for fiscal years beginning after December 15, 2026, including interim periods within those fiscal years. Early adoption is permitted as of the beginning of an annual reporting period and adoption can be applied on prospectively or retrospectively. The Company is currently evaluating the impact of ASU 2025-12 on its consolidated financial statements and disclosures.

Other than as described above, no accounting pronouncements issued or effective during the year ended December 31, 2025, has had or is expected to have a material impact on the consolidated financial statements.

3. Reverse Recapitalization

On the Closing Date, HCM II consummated the transactions set forth by the Business Combination Agreement dated March 26, 2025 with TEDI and Merger Sub. Upon closing, Merger Sub merged with and into TEDI, with TEDI surviving as a wholly owned subsidiary of the Company. The Transactions were accounted for as a reverse recapitalization in accordance with U.S. GAAP. Under this method of accounting:

- TEDI is treated as the accounting acquirer.
- The transaction is equivalent to the issuance of shares by TEDI for the net monetary assets of the Company, accompanied by a recapitalization.
- No goodwill or other intangible assets were recorded. The net assets of the Company were recorded at historical cost.

HCM II did not meet the definition of a "business" pursuant to ASC 805-10-55, Business Combinations ("ASC 805"), and thus, for accounting purposes, the Business Combination was accounted for as a reverse recapitalization, within the scope of ASC 805. The net assets of HCM II were stated at historical cost, with no goodwill or other intangible assets recorded. There was no excess of the fair value of shares issued to HCM II over the fair value of HCM II's identifiable net assets acquired.

Accordingly the consolidated financial statements prior to the Closing Date represent those of TEDI, while the equity structure (i.e., number and type of shares outstanding) reflects the legal capital structure of the Company after the Business Combination, retroactively adjusted to reflect the Exchange Ratio of 44.7029 as of the earliest presented period, in this case, January 1, 2024.

Upon closing of the Business Combination:

- An aggregate of 48,028,812 shares of common stock were issued to TEDI securityholders, including holders of convertible notes.
- Preferred shares of TEDI converted into common stock pursuant to the terms of TEDI's governing documents.
- TEDI's convertible notes were converted into common stock in accordance with their contractual terms.
- Outstanding options, warrants, and restricted stock units of TEDI were assumed and converted into comparable awards exercisable for or settled in common stock based on the Exchange Ratio.
- In connection with the shareholder vote approving the Business Combination, 7,390 public shares were redeemed for approximately $77,890.

PIPE Financing

Concurrently with the closing of the Business Combination, the Company consummated a private placement (the "PIPE") pursuant to which it issued 5,000,000 shares of common stock at $10.00 per share, resulting in gross proceeds of $50.0 million.

The following table reconciles the elements of the Business Combination to the consolidated statements of cash flows for the year ended December 31, 2025:

Cash-trust and cash, net of redemptions	$	243,066,977
Add: proceeds from issuance of shares from PIPE investors		49,500,000
Less: transaction costs and professional fees, paid		(22,305,729)
Net proceeds from the Business Combination	**$**	**270,261,248**

The following table provides a reconciliation of the common and exchangeable shares as of December 31, 2025:

TEDI existing shares at closing date:	
Preferred Series A shares	200,592
Common shares	784,831
Total TEDI shares at closing date	985,423
Total TEDI shares at closing date - recasted	**44,051,295**
Conversion of convertible notes to common shares	3,977,517
Issuance of shares to PIPE investors	5,000,000
Issuance of shares to HCM II	28,742,610
Total recapitalized common shares at December 31, 2025	**81,771,422**
TEDI existing exchangeable shares at closing date:	
Preferred exchangeable shares	6,200
Common exchangeable shares	530,924
Total TEDI exchangeable shares at closing date	537,124
Total TEDI exchangeable shares at closing date - recasted	**24,011,017**
Conversion of preferred exchangeable shares to exchangeable shares	277,158
Conversion of common exchangeable shares to exchangeable shares	23,733,859
Total recapitalized exchangeable shares at December 31, 2025	**24,011,017**

The below table represents the amount of the Company's transaction expenses included in the financial statements for the year ended December 31, 2025:

		December 31, 2025
Professional fees	$	14,324,981
Legal expenses		7,980,748
Total transaction costs	$	**22,305,729**

4. Prepaid Expenses and Other Current Assets

The components of prepaid expenses and other current assets were as follows:

	December 31,	
	2025	**2024**
Sales tax receivable	$ 92,547	$ 82,924
Government grants receivable	—	45,991
Prepaid software costs	490,907	15,462
Prepaid insurance	1,007,243	—
Other prepaid expenses	178,567	125,714
Total	$ 1,769,264	$ 270,091

5. Property and Equipment, Net

The components of property and equipment, net were as follows:

	December 31,	
	2025	2024
Computer equipment	$ 738,809	$ 1,548,538
Computer software	1,199,373	5,123,755
Equipment	22,869	4,827
Furniture and fixtures	3,233	163,756
Leasehold improvements	140,881	687,024
Total	**2,105,165**	**7,527,900**
Less: Accumulated depreciation and amortization	(1,270,370)	(6,757,352)
Total	**$ 834,795**	**$ 770,548**

Depreciation and amortization expense on property and equipment for the years ended December 31, 2025 and 2024 was $1,012,872 and $1,206,215, respectively.

6. Intangible Assets, Net

The components of intangible assets, net were as follows:

	Useful life	December 31,	
		2025	2024
Intellectual property rights	20 years	$ 22,800	$ 21,718
Patents and trademarks	20 years	991,930	865,682
Total		**1,014,730**	**887,400**
Less: Accumulated amortization		(306,981)	(270,428)
Total		**$ 707,749**	**$ 616,972**

Amortization expense relating to the intangible assets for the years ended December 31, 2025 and 2024 was $25,254 and $50,176, respectively.

Estimated future amortization of intangibles is as follows:

Year ending December 31,	Amount
2026	$ 43,417
2027	43,417
2028	43,417
2029	43,417
2030	43,417
Thereafter	490,664
	$ 707,749

7. Financial Instruments

The following table shows the Company's cash, cash equivalents and short-term investments by significant investment category as of December 31, 2025.

	Amortized Cost	Unrealized Gains	Fair Value	Cash and Cash Equivalents	Short-Term Investments
Cash	$ —	$ —	$ —	$ 3,266,974	$ —
Level 1:	—	—	—	—	—
Money market funds	—	—	—	93,897,417	—
U.S. Treasury securities	199,496,833	1,129,448	200,626,281	—	200,626,281
Total	**$ 199,496,833**	**$ 1,129,448**	**$ 200,626,281**	**$ 97,164,391**	**$ 200,626,281**

As of December 31, 2024, the Company's cash and cash equivalents were $3,021,795.

8. Accounts Payable and Accrued Expenses

The components of accounts payable and accrued expenses were as follows:

	December 31,	
	2025	2024
Trade payables	$ 4,478,088	$ 366,321
Accrued salaries and benefits	87,360	54,569
Accrued contractor expense	92,593	47,956
Government grant repayment accrual	—	10,274
Other accrued expenses	842,905	269,747
Total	**$ 5,500,946**	**$ 748,867**

9. Leases

The Company leases office spaces and office equipment from various lessors. Some property leases contain extension options exercisable by the Company up to one year before the end of the non-cancellable contract period. The lease agreements do not contain any material residual value guarantees or material restrictive covenants. The components of lease cost for the year ended December 31, 2025 and 2024 are summarized below:

	Year ended December 31,	
	2025	2024
Operating lease cost	296,466	218,886
Finance lease cost	148,537	62,453
Total lease cost	445,003	281,339

Operating lease costs are included under "general and administrative" in the consolidated statements of operations. Interest on finance leases are included under "interest expense" in the consolidated statements of operations, with amortization of finance leases included under "depreciation and amortization" in the consolidated statements of operations.

Other information — operating leases

	Year ended December 31, 2025	Year ended December 31, 2024
Weighted-average remaining lease term (in years)	4.28	5.00
Weighted-average discount rate	4.22 %	4.38 %
Cash paid for amounts included in the measurement of operating lease liabilities	$ 328,496	$ 218,886

Right-of-use assets obtained in exchange for operating lease liabilities for the year ended December 31, 2025 and 2024 were $970,279 and $144,978, respectively.

The following table reconciles the future undiscounted cash flows of operating leases to the operating and finance lease liabilities recorded on the consolidated balance sheet as of December 31, 2025:

Period range	Operating leases	Finance leases
0 – 1 years	$ 458,502	$ 37,831
1 – 2 years	511,596	37,831
2 – 3 years	521,179	12,153
3 – 4 years	530,970	8,999
4 – 5 years	148,235	—
Total undiscounted lease payments	2,170,482	96,814
Less: imputed interest	(186,587)	(7,473)
Total lease liabilities	1,983,895	89,341
Less current portion	(383,223)	(33,362)
Noncurrent portion	**$ 1,600,672**	**$ 55,979**

10. Government Grants

On September 2, 2020, the Ministry of Innovation, Science and Economic Development Canada (“ISED”) agreed to provide the Company with a conditionally repayable contribution of up to $20,000,000 CAD (“Contribution Agreement”) through the Strategic Innovation Fund (“SIF”) to fund eligible expenditures incurred from April 1, 2019 through December 31, 2021 related to the development of the Company’s patented IMSR reactor (“the “SIF Project”).

The contribution is repayable annually at 3.00% of Gross Business Revenues (“GBR”), as defined in the Contribution Agreement, for a period of 25 years beginning at the start of the Company’s second fiscal year following completion of the SIF Project, or until total repayments reach up to 1.75 times the actual amount received from ISED, whichever occurs first. Repayments are calculated based on GBR earned during the Canadian government fiscal year (April 1 to March 31) and are due no later than April 30 following the end of the applicable government fiscal year. If no GBR is earned in a given government fiscal year, no repayment is required for that period. The repayment period expires on the later of April 30, 2048, or the date of the final repayment.

The Company recognized the benefit of the contribution as government grant income in other income on a systematic basis as the related eligible expenditures were incurred (see Note 2, Significant Accounting Policies). Future repayments are contingent on the generation of GBR, and management is not able to reasonably estimate the timing or amount of such repayments as of December 31, 2025. Accordingly, no liability has been recognized for contingent future repayments beyond amounts accrued for repayments triggered by revenues earned to date.

As of December 31, 2025, the Company has received total contributions of $14,925,373. The Company has recorded $0 and $10,274 as a repayment accrual as of December 31, 2025 and 2024, respectively, which is included in accounts payable and accrued expenses on the consolidated balance sheets.

11. Convertible Notes and Convertible Notes — Related Parties

2024 Bridge Round Offering

From April 2024 through December 2024, the Company entered into subscription and exchange agreements for an offering of units with various investors, including related parties (the "Bridge Round Offering"). Each unit was comprised of (i) a convertible note and (ii) ten warrants expiring July 31, 2028 to buy common stock of the Company at $2.24 exercisable in cash or by cashless exercise based on the market price of shares in the specified manner.

Each convertible note was a secured convertible note of the Company in the principal amount of $1,000 per unit due July 31, 2026 with a principal amount of $1,000 bearing interest at 8%. The convertible notes (including unpaid interest) were automatically convertible prior to maturity into (i) (a) the shares of the surviving entity following a SPAC (Special Purpose Acquisition Company) merger at a conversion price equal to 75% of the issue price of the securities issued by such surviving entity and (b) certain limited rights to the issue of additional surviving entity securities 21 days after the expiry of the lock ups associated with the SPAC merger transaction to compensate for any price evolution in the trading price of such securities below the issue price down to $5.00; (ii) the Company's common or preferred stock in the case of a $50.0 million issuance of common or preferred stock (excluding units or monies raised in connection with a SPAC merger) at a conversion price equal to 75% of the issue price of such securities, or (iii) the same class of shares of the Company issued in connection with an IPO shares at a conversion price equal to 75% of the price of such shares immediately post IPO.

The Company's obligations under the convertible notes, are secured in favor of each convertible note holder by a guaranty made by the Company and a security interest in all present and after acquired personal property and assets of the Company. The convertible notes include a prohibition on the Company granting liens or security interests on its assets outside the ordinary course of business.

Additionally, the Company entered into exchange agreements with each of the previously outstanding Convertible Note holders whereby the holders received similar rights as investors in the Bridge Round Offering. The Company evaluated the exchange agreement and determined it was not required to be accounted for as a Troubled Debt Restructuring under ASC 470-60 as no concession was granted to the Company. The Company then evaluated the exchange under ASC 470-50, Debt — Modifications and Extinguishment.

The 2024 Bridge Round Convertible Notes are required to be accounted for as an ASC 480-10 liability as a result of the Variable Share Settlement provisions. The warrants issued in the Bridge Round Offering (the "Bridge Warrants") qualified as permanent equity under ASC 815-40; therefore, the Bridge Warrants were recognized within paid-in capital and measured at relative fair value. When estimating the fair value of the Bridge Warrants, the Company has followed the guidance in ASC 820 Fair Value Measurement.

The value of the Bridge Warrants was based on Black-Scholes pricing model based on the following inputs:

	2024 Bridge Round Offering
Stock price	$ 1.16
Exercise (Strike) price	$ 2.24
Time to maturity (years)	4.1
Annualized risk-free rate	4.3 %
Annualized volatility	63.0 %

February 2025 Bridge Round Offering

During February 2025 the Company entered into subscription and exchange agreements for an offering of units with various investors, including related parties (the "February 2025 Offering") providing for proceeds of $11.0 million. Each unit was comprised of (i) a convertible note and (ii) ten warrants expiring July 31, 2028 to buy common stock of the Company at $2.24 exercisable in cash or by cashless exercise based on the market price of shares in the specified manner.

Each convertible note was a secured convertible note of the Company in the principal amount of $1,000 per unit due July 31, 2026 with a principal amount of $1,000 bearing interest at 8%. The convertible notes (including unpaid interest) were automatically convertible prior to maturity into (i) (a) the shares of the surviving entity following a Special Purpose Acquisition Company ("SPAC") merger at a conversion price equal to 75% of the issue price of the securities issued by such surviving entity and (b) certain limited rights to the issue of additional surviving entity securities 21 days after the expiry of the lock ups associated with the SPAC merger transaction to compensate for any price evolution in the trading price of such securities below the issue price down to $5.00; (ii) the Company's common or preferred stock in the case of a $50.0 million issuance of common or preferred stock (excluding units or monies raised in connection with a SPAC merger) at a conversion price equal to 75% of the issue price of such securities, or (iii) same class of shares of the Company issued in connection with IPO shares at a conversion price equal to 75% of the price of such shares immediately post IPO.

The Company's obligations under the convertible notes, are secured in favor of each convertible note holder by a guaranty made by the Company and a security interest in all present and after acquired personal property and assets of the Company. The convertible notes include a prohibition on the Company granting liens or security interests on its assets outside the ordinary course of business.

The February 2025 Offering convertible notes are required to be accounted for as an ASC 480-10 liability as a result of the Variable Share Settlement provisions. The warrants qualified as permanent equity under ASC 815-40; therefore, the warrants were recognized within paid-in capital and measured at relative fair value. When estimating the fair value of the warrants, the Company has followed the guidance in ASC 820 Fair Value Measurement.

The fair value of the warrants issued with the February 2025 Offering was based on Black-Scholes pricing model based on the following inputs:

	February 2025 Bridge Round Offering
Stock price	$ 1.45
Exercise (Strike) price	$ 2.24
Time to maturity (years)	3.4
Annualized risk-free rate	4.2 %
Annualized volatility	51.3 %

Each convertible note that was outstanding immediately prior to the Effective Time of the close was cancelled and automatically converted pursuant to its terms, and the holder thereof became entitled to receive, a number of shares of common stock equal to (A) the outstanding amount of such convertible note, including any accrued and unpaid interest, divided by (B) $7.91 (seventy-five percent (75%) of the redemption price).

Rollforward of Convertible Notes and Convertible Notes-Related Party

	Convertible Notes	Convertible Notes – Related Party
Balance at January 1, 2024	**$ 7,918,528**	**$ 2,032,017**
Bridge Round Offering proceeds	6,563,000	650,000
Loss on extinguishment of debt	1,183,289	202,204
Recognition of debt discount	(2,173,509)	(514,827)
Foreign currency translation adjustment	(369,323)	(130,898)
Amortization of debt discount	586,847	133,498
Balance at December 31, 2024	**13,708,832**	**2,371,994**
February 2025 Offering proceeds	9,335,000	1,650,000
Recognition of debt discount	(2,323,073)	(271,458)
Amortization of debt discount	1,698,368	439,616
Conversion of convertible notes to common shares, exclusive of accrued interest converted	(22,419,127)	(4,190,152)
Balance at December 31, 2025	**$ —**	**$ —**

12. Related Party Balances and Transactions

The following table summarizes the Company's related party transactions for the year:

	2025	2024
Professional fees and expenses paid to companies controlled by officers included in general and administrative	$ 249,323	$ 442,110
Research and development expenses paid to companies controlled by officers included in general and administrative	$ —	$ 42,212
Accounts payable due to related parties	$ —	$ 9,010

These transactions are in the normal course of operations and are measured at fair value, which is the amount of consideration established and agreed to by the related parties.

During the year ended December 31, 2024, the Company issued 2,818,520 shares of Common Stock to SWH Capital LLC, an entity controlled and owned by the Chief Executive Officer of the Company, as consideration for all of the shares of common stock of TEUSA owned by SWH.

In December 2024, the Company received $100,000 in advance from a related party as an advance of the February 2025 Bridge Round Offering.

The Company had issued convertible notes to certain related parties, which included accrued interest prior to automatic conversion to common shares following the SPAC merger, refer Note 3 and 11 for further detail. All convertible notes converted as of December 31, 2025.

13. Stockholders' Equity (Deficit)

Preferred Stock

The Company is authorized to issue 1,000,000 shares of preferred stock, par value $0.0001 per share. The Company's Board of Directors is authorized, without further stockholder action, to issue preferred stock in one or more series and to establish the designations, powers, preferences and rights of each such series and the qualifications, limitations and restrictions thereof.

No shares of preferred stock were issued or outstanding as of December 31, 2025 or 2024 on a post-Reverse Recapitalization basis. Immediately prior to the Reverse Recapitalization described in Note 3, the Company had 6,154,342 shares of Series A Preferred Stock outstanding as of December 31, 2024 and issued an additional 2,812,708 shares of Series A-1 Preferred Stock during 2025. In connection with the Reverse Recapitalization, all 8,967,050 outstanding shares of preferred stock were converted into common stock.

Common Stock

The Company's Board of Directors has authorized 500,000,000 shares of common stock, par value $0.0001. Holders of common stock are entitled to one vote per share. Subject to the rights of any series of preferred stock that may be outstanding, holders of common stock are entitled to receive dividends when, as and if declared by the Board of Directors out of funds legally available. In the event of liquidation, dissolution or winding up, holders of common stock are entitled to share ratably in the Company's remaining assets after the satisfaction of liabilities and subject to any preferential rights of preferred stock. par value of Common Stock. As of December 31, 2025 and 2024, the Company has 81,771,422 and 39,159,901 shares of common stock issued and outstanding, respectively. In connection with the Reverse Recapitalization, outstanding share amounts as of December 31, 2024 have been retrospectively restated to give effect to the Business Combination.

Common Stock Warrants

As of December 31, 2025, the Company had 30,276,119 of outstanding warrants to purchase common stock at an average exercise price of $8.24 per share.

As of December 31, 2024, the Company had 7,759,535 of outstanding warrants to purchase common stock at an average exercise price of $2.24 per share.

Call Options

Pursuant to various call option agreements entered into with certain stockholders prior to the Company's April 5, 2024 redomicile and corporate reorganization and the Business Combination, the Company retains the right to repurchase up to an aggregate of 6,124,297 shares of its outstanding common stock at fixed exercise prices ranging from $1.12 CAD to $2.24 per share. These call options are exercisable at the Company's discretion and expire at various dates ranging from December 31, 2035, through March 7, 2043. The call options are not subject to any service, performance, or market-based vesting conditions and are not transferable without Company consent. The Company has not exercised any of these call options as of December 31, 2025.

The call option agreements continue to be valid and enforceable following the redomicile and corporate reorganization and consummation of the business combination. These instruments are presented within stockholders' equity (deficit) at the original consideration price per share and are not remeasured unless exercised.

Exchangeable Shares

As of both December 31, 2025 and 2024, the Company had 24,011,017 exchangeable shares outstanding on a post-Reverse Recapitalization basis. Immediately prior to the Reverse Recapitalization, the December 31, 2024 balance consisted of 277,158 preferred exchangeable shares and 23,733,859 common exchangeable shares. These shares are legally issued by Terrestrial Energy Canada (Exchange) Inc., a wholly-owned subsidiary of the Company ("ExchangeCo"). In connection with the closing of the Business Combination, ExchangeCo exchangeable preferred shares and exchangeable common shares that existed prior to the Business Combination were recapitalized into a single class of exchangeable shares as of the Business Combination.

Each exchangeable share is convertible on a 1-for-1 basis into the Company's common shares, either at the option of the holder or upon the occurrence of certain events. The exchangeable shares carry economic rights and dividend entitlements equivalent to the Company's corresponding equity instruments and participate in Company-level voting through a special voting mechanism. Exchangeable shares hold limited economic rights with respect to ExchangeCo and are not entitled to dividends of ExchangeCo; provided that holders of exchangeable shares are entitled to dividends paid on Company shares.

The Company has entered into an amended and restated support and exchange agreement with the ExchangeCo and a trustee to guarantee all obligations associated with the exchangeable shares and ensure that holders receive equivalent rights that are intended to be substantively equivalent to direct shareholders of the Company. As such, these instruments are treated as equity of the Company, and not reported as noncontrolling interests. No exchange of shares occurred during the years ended December 31, 2025 or 2024.

14. Net Loss Per Share of Common Share

Prior to the Merger, the Company used the two-class method required for participating securities. The two-class method determines net income (loss) per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income (loss) available to common stockholders for the period to be allocated between common and participating securities based upon their respective rights to shares in undistributed earnings as if all income (loss) for the period had been distributed. The Company's preferred stock that was outstanding prior to the Merger contractually entitled the holders of such stock to participate in dividends but did not contractually require the holders of such stock to participate in losses of the Company. Accordingly, in periods in which the Company reported a net loss attributable to common stockholders, such losses were not allocated to the preferred stock. The Company may be required to issue additional common shares pursuant to contingent value rights ("CVRs") issued in connection with the Business Combination. The number of shares issuable is contingent upon the Company's future stock price performance over a specified measurement period. As the contingency has not been met as of December 31, 2025, these shares have not been included in the calculation of basic or diluted net loss per share.

After the Merger, the Company applied the treasury stock method to determine the dilutive effect of potentially dilutive securities, and the if-converted method to determine the dilutive effect of any potentially dilutive convertible securities, as post-merger, the Company's only participating securities were shares of the Company's common stock, and any dividends declared on the common stock would be forfeitable if not vested.

Basic net loss per share is calculated by dividing the net loss attributable to common stockholders by the weighted average number of common stock outstanding during the period, without consideration of potentially dilutive securities. There are no potentially dilutive securities included in the Company's diluted net loss per share calculation for the years ended December 31, 2025 and 2024, as the effect of any potentially dilutive security is anti-dilutive due to the net losses in those periods.

The table below sets forth the computation of basic and dilutive net loss per share:

	For the year ended December 31,	
	2025	2024
Numerator:		
Net loss	$ (28,016,641)	$ (11,485,410)
Denominator:		
Weighted-average shares outstanding, basic and diluted	71,646,985	60,414,175
Net loss per share, basic and diluted	$ (0.39)	$ (0.19)

The weighted-average shares outstanding above include both common shares and exchangeable shares outstanding at December 31, 2025 and 2024 as these shares are exchangeable one-for-one basis into the Company's common shares and are therefore economically equivalent to common shares outstanding.

The table below sets forth a listing of potentially dilutive securities that were excluded from the calculation of diluted net loss per share attributable to common shareholders because the impact of including them would have been anti-dilutive or out-of-the-money. Potentially dilutive securities include stock options, restricted stock units, warrants, and other share-settled instruments:

	For the year ended December 31,	
	2025	2024
Stock options	17,691,184	18,951,539
RSUs	1,232,794	—
Warrants (public and private)	30,276,119	7,759,535
Total	49,200,097	26,711,074

15. Stock-Based Compensation

In 2014, the Company adopted the amended and restated Terrestrial Energy Inc. 2014 Stock Options Plan A (the "2014 Plan"). In connection with the Company's redomestication to Delaware, outstanding awards under the 2014 Plan were assumed by the Terrestrial Energy Delaware Inc. 2024 Stock Option Plan, which was most recently amended and restated in October 2024, as the Terrestrial Energy Inc. Second Amended and Restated 2024 Stock Option Plan. In October 2025, the Company adopted the 2025 Equity Incentive Plan, effective immediately prior to the closing of the Business Combination (the "Current Plan"). As of December 31, 2025, the Current Plan authorizes the Company to award equity awards resulting in the issuance of up to 38,741,269 shares of common stock. The Current Plan provides for grants of incentive stock options, non-qualified stock options, restricted stock awards, restricted stock unit awards, stock appreciation rights and other awards to employees, non-employee directors, consultants and advisors of the Company. The Current Plan is designed to promote the interests of the Company using equity investment interests to attract, motivate, and retain individuals. The Current Plan is administered by the Board of Directors. The Board determines the type, number, vesting requirements and other features and conditions of such awards. Generally, stock options granted from the Current Plan have a contractual term of twenty years from the date of the grant and vest over one to three years.

Stock option transactions and the number of stock options outstanding are summarized as follows:

	December 31, 2025		December 31, 2024	
	Number	Weighted Average Exercise Price	Number	Weighted Average Exercise Price
Outstanding, beginning of year	19,018,593	$ 1.01	18,249,971	$ 1.00
Granted	1,167,819	4.83	768,622	2.24
Exercised	(67,054)	0.09	—	—
Forfeited	(2,428,174)	1.47	—	—
Outstanding, end of year	17,691,184	1.34	19,018,593	1.01
Less: Options not vested	(2,339,259)	4.18	(2,154,905)	2.17
Exercisable at year end	15,351,925	$ 0.89	16,863,688	$ 0.49

The Company recorded stock-based compensation expense for options of $1,323,108 and $670,243 for the years ended December 31, 2025 and 2024, respectively. As of December 31, 2025, total compensation expense related to awards not yet recognized (except those with performance conditions that are not yet probable) was $2.0 million which is expected to be recognized over a weighted average period of 1.7 years.

The Company used the Black-Scholes option-pricing model to estimate the fair value of the options granted at the grant date using the following data and assumptions:

	2025	2024
Risk-free interest rate	4.56 %	3.87 %
Exercise price	$ 4.83	$ 2.24
Share price	$ 3.99	$ 1.16
Expected life of options	3 Years	3 Years
Annualized volatility	86.0 %	63.0 %

As there is insufficient historical share price data of the Company from which to estimate future share price volatility, the Company has estimated expected share price volatility based on the historical share price volatility of comparable entities. The expected life of the share options is based on the expectation that investors will exercise their rights as certain Company milestones are met as well as review of comparable companies. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected term of the stock options. The Company has not paid and does not anticipate paying cash dividends on shares of common stock; therefore, the expected dividend yield is assumed to be zero.

Restricted stock unit transactions and the number of RSUs outstanding are summarized as follows:

	December 31, 2025	
	Number	Weighted Average Grant-Date Fair Value
Outstanding, beginning of year	—	$ —
Granted	1,232,794	10.56
Vested	—	—
Forfeited/Expired	—	—
Outstanding, end of year	1,232,794	$ 10.56

The Company recorded stock-based compensation expense for RSU awards of $1,780,594 and $0 for the years ended December 31, 2025 and 2024, respectively

The total unrecognized RSU expense as of December 31, 2025 was $11,258,886 with a weighted-average period over which it is to be recognized of 1.4 years.

16. Income Taxes

The income tax expense (benefit) for 2025 and 2024 are as follows:

	2025	2024
Current:		
Federal	$ —	$ 35,088
State	700	—
Foreign	1,849	1,278
Total current income tax	2,549	36,366
Deferred:		
Federal	15,401	(15,401)
State	—	—
Foreign	—	—
Total deferred tax	15,401	(15,401)
Total income tax expense	$ 17,950	$ 20,965

A reconciliation between domestic and international earnings (loss) before income taxes is as follows:

	2025	2024
Domestic	$ (17,127,042)	$ (1,374,250)
International	(10,871,649)	(10,090,195)
Net loss before income taxes	$ (27,998,691)	$ (11,464,445)

A reconciliation between the effective income tax rate and the federal statutory income tax rate is as follows:

	2025		2024	
Federal tax at statutory rate	$ (5,879,725)	21.0 %	$ (2,407,533)	21.0 %
Permanent book/tax differences	1,317,897	(4.7)	676,297	(5.9)
Return to provision adjustments	1,392,136	(5.0)	(65,996)	0.6
Difference in tax rates	(539,994)	1.9	(586,767)	5.1
Impact of Canadian dollar exchange rate changes	(1,013,116)	3.6	1,560,416	(13.6)
Change in valuation allowance	4,740,752	(16.9)	844,548	(7.4)
Total tax expense	$ 17,950	(0.1)%	$ 20,965	(0.2)%

Deferred Income Tax

The significant components of the deferred tax assets and liabilities consisted of the following:

	2025	2024
Deferred tax assets:		
R&D expenses	$ 3,485,406	$ 3,380,350
Net operating loss carryforwards	17,547,661	13,401,755
Tax credit carryforwards	2,445,772	3,133,678
Operating lease liabilities	498,400	239,253
Stock based compensation	502,016	—
R&D intangible tax pool section 174	622,270	—
Other	93,988	73,668
Total gross deferred tax assets	25,195,513	20,228,704
Valuation allowance	(24,640,726)	(19,821,008)
Total deferred tax assets, net of valuation allowance	554,787	407,696
Deferred tax liabilities		
Property and equipment	(94,585)	(60,460)
Intangible assets	(27,892)	(96,660)
Right of use assets	(432,310)	(176,333)
Convertible debt	—	(740,196)
Total gross deferred tax liabilities	(554,787)	(1,073,649)
Net deferred tax liabilities	$ —	$ (665,953)

In assessing the realizability of deferred tax assets, management considers all positive and negative evidence to determine whether it is more likely than not that some portion of all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the period in which those temporary differences become deductible. Due to the uncertainty of the Company's ability to realize the benefit of the deferred tax assets, primarily related to the history of cumulative operating losses, the net deferred tax assets are offset by a valuation allowance at December 31, 2025 and 2024. As of December 31, 2025, the Company recorded a valuation allowance of $24,640,726 compared to $19,821,008 as of December 31, 2024.

As of December 31, 2025 and 2024, the Company had no unrecognized tax benefits. The Company's policy is to recognize interest and penalties related to income tax matters in income tax expense. As of both December 31, 2025 and December 31, 2024, the Company had no accrual for any for net interest and penalties.

As of December 31, 2025 and 2024, the Company had net operating loss carryforwards ("NOLs") of $67,261,109 and $50,927,528, respectively, comprised of $62,233,225 Canadian NOLs which have a 20-year expiration period and will begin to expire in 2035 and $5,027,884 U.S NOLs with indefinite carryforward period, Canadian federal tax credit carryforwards of $2,197,097 and $3,187,456, respectively, that have a 20-year expiration period and will begin to expire in 2039, Canadian state tax credit carryforwards of $830,310 and $790,898, respectively, that have a 20-year expiration and will begin to expire in 2035, and foreign tax credit carryforwards of $0 and $7,136, respectively, that have a 20-year expiration period and will begin to expire in 2041.

The Company is subject to U.S. federal and state income tax, Canadian federal and provincial income tax, as well as various other foreign jurisdictions that impose an income tax. The years that remain subject to examination are primarily 2021 and later.

On July 4, 2025, the One Big Beautiful Bill Act ("OBBBA") was enacted in the United States. The OBBBA includes significant tax law changes, including the permanent extension of certain provisions from the U.S. Tax Cuts and Jobs Act, modifications to the international tax framework, and the reinstatement of favorable business tax provisions. These include 100% bonus depreciation, immediate expensing of Section 174 domestic research and experimental expenditures, and revised limitations under Section 163(j) on the deductibility of business interest expense. The legislation has multiple effective dates, with certain provisions effective beginning in 2025, and others implemented through 2027. We evaluated the impact of the OBBBA and determined its provisions do not have a material impact on our overall tax liability both for the current year and in the succeeding years.

17. Segment Information

ASC Topic 280, "Segment Reporting," establishes standards for companies to report in their financial statement information about operating segments, products, services, geographic areas, and major customers. Operating segments are defined as components of an enterprise that engage in business activities from which it may recognize revenues and incur expenses, and for which separate financial information is available that is regularly evaluated by the Company's chief operating decision maker, or group, in deciding how to allocate resources and assess performance.

The Company's chief operating decision maker ("CODM") has been identified as the Chief Executive Officer in accordance with ASC 280-10-50-5, who reviews the assets, operating results, and financial metrics for the Company as a whole to make decisions about allocating resources and assessing financial performance. Accordingly, management has determined that there is only one reportable segment.

The CODM assesses performance for the single segment and decides how to allocate resources based on net income or loss that also is reported on the consolidated statement of operations as net income or loss. The measure of segment assets is reported on the consolidated balance sheet as total assets when evaluating the Company's performance and making key decisions regarding resource allocation the CODM reviews several key metrics, which include the following:

	For the year ended December 31,	
	2025	2024
Research and development costs	$ 9,767,996	$ 5,176,932
General and administrative expenses	14,266,775	4,168,576
Other significant non-cash items:		
Depreciation and amortization	1,161,704	1,256,391
Total Operating Expenses	25,196,475	10,601,899
Revenue	—	248,357
Total other (expense) income	(2,802,216)	(1,110,903)
Income tax expense	(17,950)	(20,965)
Net loss	$ (28,016,641)	$ (11,485,410)

As the Company has not earned significant revenue yet, the key measures of segment profit or loss reviewed by the Company's CODM are research and development costs and general and administrative expenses to monitor, manage and forecast cash to ensure enough capital is available for working capital needs. The CODM also reviews research and development costs and general and administrative costs to manage, maintain and enforce all contractual agreements to ensure costs are aligned with all agreements and budget.

The geographic location of long-lived assets is as follows:

	December 31,	
	2025	2024
United States	$ 1,231,273	$ 14,853
Canada	2,189,215	2,024,865
Total	$ 3,420,488	$ 2,039,718

18. Commitments and Contingencies

Litigation and loss contingencies

From time to time, the Company may be subject to other legal proceedings, claims, investigations, and government inquiries (collectively, legal proceedings) in the ordinary course of business. It may receive claims from third parties asserting, among other things, infringement of their intellectual property rights, defamation, labor and employment rights, privacy, and contractual rights. There are no currently pending legal proceedings that the Company believes will have a material adverse impact on the business or consolidated financial statements.

19. Subsequent Events

The Company evaluated subsequent events from December 31, 2025 through March 30, 2026, the issuance date of these consolidated financial statements, for events requiring recognition or disclosure in the consolidated financial statements as of and for the year ended December 31, 2025.

On March 3, 2026, the Company received a demand letter from a former employee of one of the Company's subsidiaries over his efforts to exercise certain stock option agreements. Specifically, the dispute centers on whether this former employee has or is willing to address certain potential tax obligations in order to allow the option exercise to be affected. The demand letter seeks enforcement of the option agreements, but no litigation has commenced.

The Company is currently evaluating the matter in consultation with legal counsel. Based on the information available as of the issuance date of these consolidated financial statements, the Company has not recorded a liability related to this matter as it has not concluded that a loss is probable.

The ultimate outcome of this matter is uncertain and, if the outcome was unfavorable to the Company, could have a material effect on the Company's financial position, results of operations, or cash flows in a future period.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures are controls and other procedures designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is accumulated and communicated to Management, including our Chief Executive Officer and Chief Financial Officer (together, the "Certifying Officers"), or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our Management, including our Certifying Officers, we carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on the foregoing, our Certifying Officers concluded that our disclosure controls and procedures were effective as of the end of the fiscal year ended December 31, 2025. Accordingly, Management believes that the financial statement contained elsewhere in this Report present fairly in all material respects our financial position, results of operations and cash flows for the period presented.

We do not expect that our disclosure controls and procedures will prevent all errors and all instances of fraud. Disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Further, the design of disclosure controls and procedures must reflect the fact that there are resource constraints, and the benefits must be considered relative to their costs. Because of the inherent limitations in all disclosure controls and procedures, no evaluation of disclosure controls and procedures can provide absolute assurance that we have detected all our control deficiencies and instances of fraud, if any. The design of disclosure controls and procedures also is based partly on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Management's Annual Report on Internal Controls over Financial Reporting

This Report does not include an attestation report of our internal controls from our independent registered public accounting firm due to our status as an emerging growth company under the JOBS Act.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) under the Exchange Act during the three months ended December 31, 2025, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Rule 10b5-1 Trading Plans

During the fourth quarter of 2025, none of the Company's directors or executive officers adopted, modified or terminated any "Rule 10b5-1 trading arrangement" or any "non-Rule 10b5-1 trading arrangement," as each term is defined in Item 408 of Regulation S-K.

Delaware Certificate of Correction

On March 27, 2026, the Company filed a Certificate of Correction (the "Certificate of Correction") with the Secretary of State of the State of Delaware in connection with the Company's Certificate of Incorporation filed on October 23, 2025 (the "Charter"). The Certificate of Correction was filed to update Article II of the Charter to reflect the correct name and address of the Company's registered agent. Other than disclosed herein, no additional changes have been made to the Charter. The as-corrected text of the Charter is included as Exhibit 3.1 to this Annual Report.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required under this item is incorporated herein by reference to our proxy statement for our 2026 Annual Meeting of Stockholders to be filed with the SEC not later than 120 days after December 31, 2025.

ITEM 11. EXECUTIVE COMPENSATION

The information required under this item is incorporated herein by reference to our proxy statement for our 2026 Annual Meeting of Stockholders to be filed with the SEC not later than 120 days after December 31, 2025.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required under this item is incorporated herein by reference to our proxy statement for our 2026 Annual Meeting of Stockholders to be filed with the SEC not later than 120 days after December 31, 2025.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required under this item is incorporated herein by reference to our proxy statement for our 2026 Annual Meeting of Stockholders to be filed with the SEC not later than 120 days after December 31, 2025.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required under this item is incorporated herein by reference to our proxy statement for our 2026 Annual Meeting of Stockholders to be filed with the SEC not later than 120 days after December 31, 2025.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) 1. Financial Statements. See "Part II. Item 8. Financial Statements and Supplementary Data"

2. Financial Statement Schedule. See "Part II. Item 8. Financial Statements and Supplementary Data"

3. Exhibit Index:

Exhibit Number		Description	Incorporated by Reference Herein			
			Form	Exhibit	Date Filed with the SEC	File Number
2.1	#	Business Combination Agreement, dated as of March 26, 2025, by and among HCM II Acquisition Corp., HCM II Merger Sub Inc., and Terrestrial Energy Inc.	S-4/A	2.1	September 23, 2025	001-42252
2.2		Amendment No. 1 to Business Combination Agreement, effective as of October 26, 2025, by and among HCM II Acquisition Corp., HCM II Merger Sub Inc., and Terrestrial Energy Inc.	8-K	2.2	November 3, 2025	001-42252
2.3		Certificate of Merger of HCM II Merger Sub Inc. with and into Terrestrial Energy Inc.	8-K	2.3	November 3, 2025	001-42252
2.4		Plan of Domestication	8-K	2.4	November 3, 2025	001-42252
3.1	*	Composite Certificate of Incorporation of Terrestrial Energy Inc. (as amended through March 27, 2026)				
3.2	*	Composite Bylaws of Terrestrial Energy Inc. (as amended through October 28, 2026)				
3.3	*	Certificate of Designations for Special Voting Preferred Stock				
4.1		Specimen Common Stock Certificate of Terrestrial Energy Inc.	S-4/A	4.5	September 23, 2025	333-288735
4.2	*	Specimen Warrant Certificate of Terrestrial Energy Inc.				
10.1		Amended and Restated Warrant Agreement, dated October 28, 2025, by and between the Company and Continental Stock Transfer & Trust Company, as warrant agent	8-K	10.1	November 3, 2025	001-42252
10.2		Assignment and Assumption Agreement dated October 28, 2025 by and between Terrestrial Energy Inc. and HCM II Acquisition Corp.	8-K	10.2	November 3, 2025	001-42252

Exhibit Number		Description	Incorporated by Reference Herein			
			Form	Exhibit	Date Filed with the SEC	File Number
10.3		Amended and Restated Registration Rights Agreement, dated as of October 28, 2025, by and among Terrestrial Energy Inc., Cantor Fitzgerald & Co. and HCM Investor Holdings II, LLC.	8-K	10.3	November 3, 2025	001-42252
10.4		Sponsor Support Agreement, by and among HCM II Acquisition Corp., HCM Investor Holdings II, LLC, and the other parties thereto	S-4/A	10.2	September 23, 2025	333-288735
10.5		Sponsor Lock-Up Agreement, dated as of October 28, 2025, by and among Terrestrial Energy Inc. and HCM Investor Holdings II, LLC.	8-K	10.5	November 3, 2025	001-42252
10.6		Form of Key Holders Lock-Up Agreement, dated October 27, 2025, by and among HCM II Acquisition Corp. and the other parties thereto	S-4/A	10.7	September 23, 2025	333-288735
10.7		Second Amended and Restated Exchange and Support Agreement dated October 28, 2025, by and among HCM Acquisition Corp., Terrestrial Energy Canada (Call) Inc., and Terrestrial Energy Canada (Exchange) Inc.	8-K	10.7	November 3, 2025	001-42252
10.8		Form of PIPE Subscription Agreement	S-4/A	4.8	September 23, 2025	333-288735
10.9	‡	Terrestrial Energy Inc. 2025 Equity Incentive Plan	8-K	10.9	November 3, 2025	001-42252
10.10	‡*	Form of Restricted Stock Unit Award under 2025 Plan				
10.11	‡*	Form of Stock Option Award under 2025 Plan				
10.12	‡	Terrestrial Energy Inc. Second Amended and Restated 2024 Stock Option Plan	S-8	10.2	January 5, 2026	333-292571
10.13	‡*	Form of Option Agreement under 2024 Plan				
10.14	‡	Employment Agreement, dated as of October 28, 2025, by and between Simon Irish and Terrestrial Energy Development Inc	8-K	10.10	November 3, 2025	001-42252

Exhibit Number		Description	Incorporated by Reference Herein			
			Form	Exhibit	Date Filed with the SEC	File Number
10.15	‡*	Assignment, Assumption, Waiver and Covenant Agreement, dated as of February 18, 2026, by and between Simon Irish, Terrestrial Energy Inc., and Terrestrial Energy Development Inc.				
10.16	‡	Form of Indemnification Agreement between New Terrestrial Energy and each of its directors and executive officers.	8-K	10.11	November 3, 2025	001-42252
10.17	‡*	Non-Employee Director Compensation Policy				
19.1	*	Terrestrial Energy Inc. Insider Trading Policy				
21.1		List of Subsidiaries of Terrestrial Energy Inc.	8-K	21.1	November 3, 2025	001-42252
23.1	*	Consent of UHY LLP				
31.1	*	Certification by the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
31.2	*	Certification by the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
32.1	**	Certification by the Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
97.1		Policy Relating to Recovery of Erroneously Awarded Compensation	10-K	97.1	March 31, 2025	001-42252

101.INS	*	Inline XBRL Instance Document[(1)]
101.SCH	*	Inline XBRL Taxonomy Extension Schema Document
101.CAL	*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	*	Cover Page Interactive Data File[(2)]

‡ Management contract or compensatory plan or arrangement

* Filed herewith

** Furnished herewith

Certain schedules and similar attachments to this Exhibit have been omitted in accordance with Item 601(a)(5) of Regulation S-K. The Company agrees to furnish supplementally a copy of any omitted exhibit or schedule to SEC upon its request.

(1) The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document

(2) Formatted in Inline XBRL and contained in exhibit 101

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TERRESTRIAL ENERGY INC.

By: /s/ Brian Thrasher
Brian Thrasher
Chief Financial Officer
(Principal Financial Officer)

Date: March 30, 2026

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Simon Irish Simon Irish	Chief Executive Officer and Director (Principal Executive Officer)	March 30, 2026
/s/ Brian Thrasher Brian Thrasher	Chief Financial Officer (Principal Financial and Accounting Officer)	March 30, 2026
/s/ Frederick Buckman Frederick Buckman	Chairman of the Board of Directors	March 30, 2026
/s/ Shawn Matthews Shawn Matthews	Director	March 30, 2026
/s/ Hugh MacDiarmid Hugh MacDiarmid	Director	March 30, 2026
/s/ David Hill David Hill	Director	March 30, 2026
/s/ Charles Pardee Charles Pardee	Director	March 30, 2026
/s/ Robert W. Jones Robert W. Jones	Director	March 30, 2026
/s/ William Johnson William Johnson	Director	March 30, 2026
/s/ David LeBlanc David LeBlanc	Director	March 30, 2026

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) AND RULE 15d-14(a)
UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Simon Irish, certify that:

1. I have reviewed this Annual Report on Form 10-K of Terrestrial Energy Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2026

By: /s/ Simon Irish
Simon Irish
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(a) AND RULE 15d-14(a)
UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Brian Thrasher, certify that:

1. I have reviewed this Annual Report on Form 10-K of Terrestrial Energy Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2026

By: /s/ Brian Thrasher
Brian Thrasher
Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
AND PRINCIPAL FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Terrestrial Energy Inc. (the "**Company**") for the fiscal year ended December 31, 2025, as filed with the Securities and Exchange Commission on the date hereof (the "**Report**"), each of Simon Irish, Chief Executive Officer, and Brian Thrasher, Chief Financial Officer of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of and for the period covered by the Report.

Date: March 30, 2026

By: /s/ Simon Irish
Simon Irish
Chief Executive Officer
(Principal Executive Officer)

By: /s/ Brian Thrasher
Brian Thrasher
Chief Financial Officer
(Principal Financial Officer)

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