TERRESTRIAL ENERGY

Delivering carbon-free thermal and electrical energy

APRIL 2026

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Investment Summary

Terrestrial Energy is a developer of small modular nuclear power plants using proprietary Integral Molten Salt Reactor (IMSR) technology, a Generation IV reactor technology. The IMSR delivers best-in-class capital efficiency and low-cost nuclear energy supply. Its pragmatic use of readily available Standard-Assay Low Enriched Uranium ("SALEU") in its fuel, modular design for fast construction, and regulatory leadership position it for rapid deployment.

IMSR Plants supply clean firm thermal energy and electricity for direct use. Technology, nuclear fuel, and plant design choices deliver exceptional economic performance and time-to-market with the highest standards of safety, efficiency, and sustainability. IMSR Plant's high-temperature thermal energy supply delivers a ~50% increase in steam turbine efficiency for electricity generation versus nuclear plants using legacy nuclear technology.

Terrestrial Energy's fast-to-market and low-capex business model is designed to capture these advantages in a $1.4 trillion serviceable addressable market (SAM) with long-term revenue streams from component, fuel, and service supply over the 50+ year operating life cycle of each IMSR Plant starting at the site development phase of plant deployment.

IMSR benefits from Terrestrial Energy's 10+ years of design development informed by supply chain and regulatory engagements. Terrestrial Energy's management team has recorded an impressive track record of milestones and regulatory advances with the U.S. NRC and Canadian CNSC.

Terrestrial Energy at-a-Glance

Developer of the small and modular Integral Molten Salt Reactor plant ("IMSR Plant") that uses Gen IV nuclear technology; listed under "IMSR" on Nasdaq

As a result of specific fission technology and intentional plant design choices, the IMSR Plant offers high-temperature, carbon-free heat and/or electricity supply with sector-competitive nuclear economics and time-to-market

$1.4 T
Current SAM[1]

Directly addresses a $1.4 trillion SAM for industrial process heat and electricity in OECD markets and is expected to grow 35% to $1.9 T by 2050[1]

65 years
National laboratory proven and demonstrated technology

The Molten Salt Reactor research program started at Oak Ridge National Laboratory (ORNL) in the 1950s

>12 years
Corporate history

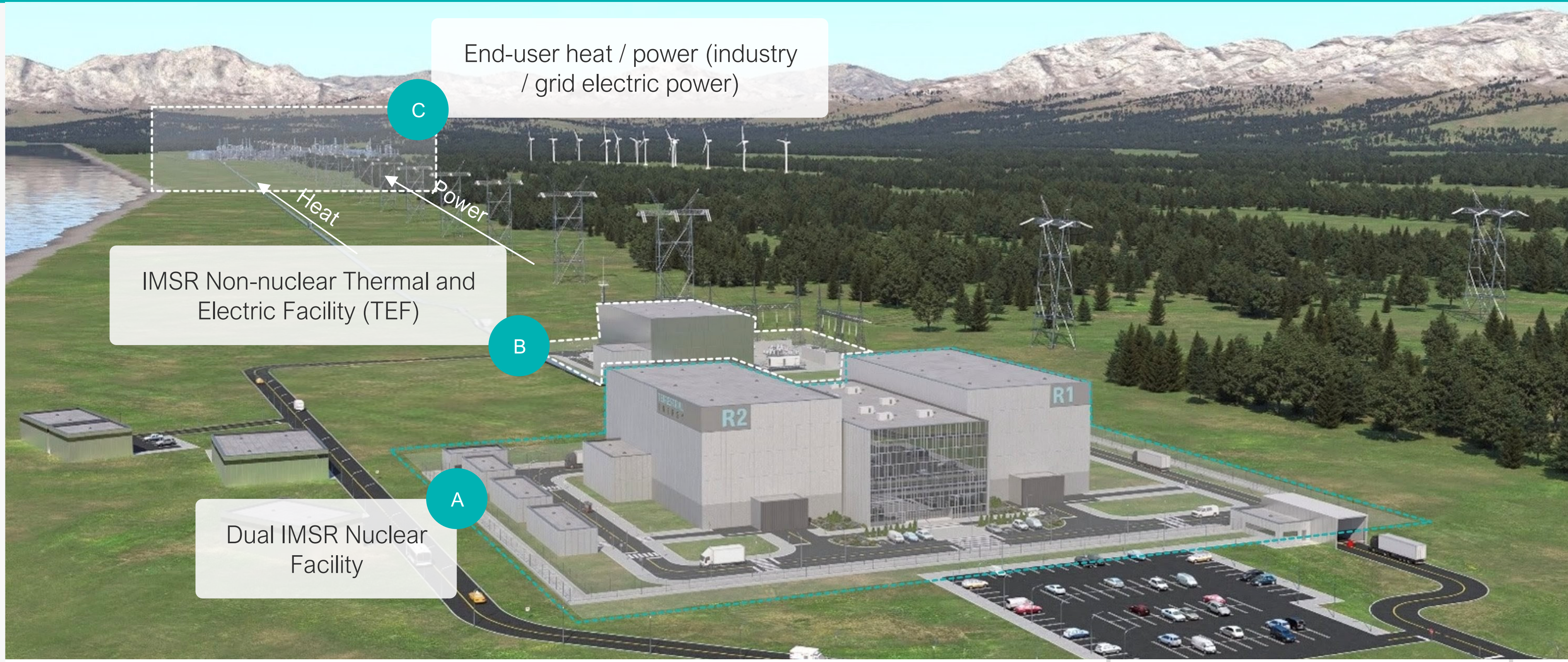
Corporate history built with an experienced management team with many decades of experience

1. Company internal projection.

IMSR Plant is Designed to Deliver **Co-located, Customized** Energy Solutions to Industry

Separation of nuclear from thermal and electrical systems allows:

- Standardized reactor design with end-user flexibility and customized co-generation of thermal and electric supply
- Easier pathway for coal plant conversion
- Ability to be hybridized with other energy systems, such as natural gas and renewables



A

Standardized twin IMSR Nuclear Facility
- Subject to nuclear regulation
- Standardized, simplified design reduces costs
- 822 MW (net) thermal energy production for 585°C supply

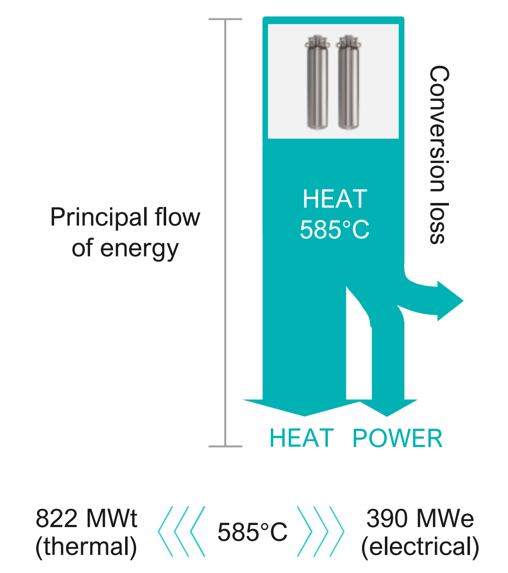
B

Customized non-nuclear Thermal and Electric Facility (TEF)
- Converts thermal energy from two operating IMSRs to 585°C 822 MW (net) thermal or 390 MW (net) electric power for commercial supply – or any heat/electric power mix in between
- Steam turbines operate at ~50% greater efficiency than in a plant employing legacy nuclear technology
- Separate Nuclear Facility & non-nuclear Thermal and Electric Facility (TEF) enables the potential to integrate natural gas as a bridge to rapid commercial operation and use as back-up during nuclear systems' operation

C

Near and co-located generation
- Chemical and petrochemical plant
- Datacenters
- Other industrials requiring clean heat & power

Prospective off-takers
- Electric grid, including municipalities



Note: Example is for a dual reactor IMSR Plant. Scaling up is possible.
Source: Company internal view

Terrestrial Energy's IMSR Plant Addresses the Weaknesses and Limitations of Legacy Nuclear Technology While Delivering the Benefits of Nuclear Energy

- Avoids HALEU (15-20)[1] fuel supply chain risk; HALEU (15-20) supply unlikely to be commercially available to support early 2030s fleet deployment, severely challenging the commercial timeframes for the other Gen IV technologies that rely on it
- Development of HALEU (15-20) fuel supply chain will require significant government support due to an uncertain market demand signal
- By contrast SALEU is readily available today and producers are currently expanding production to meet growing demand[2]

Terrestrial Energy IMSR
Gen IV Advanced Modular Reactor

High capital efficiency due to:
- High-temperature thermal energy supply for high efficiency turbine operation
- Low-pressure operation easing design requirements, lowering manufacturing costs
- High inherent safety
- Modular design for fast construction
- Long and cost-effective fuel cycle

Wide range of essential industrial uses requiring high-temperature heat & electric power
- On-grid electricity generation
- Co-located industrial cogeneration

Capital efficient, smaller footprint for siting flexibility, modular design for fast construction, and financeable. High commercial value delivered quickly.

Legacy Nuclear Technology
LWR Gen II, III and III+ (including SMRs)

Low capital efficiency due to:
- Low-temperature thermal energy supply for low efficiency turbine operation
- High pressure operation
- High active and/or passive safety
- Conventional construction methods

Limited use case, focused primarily on electricity generation
- Very large unit plant configuration
- Centralized grid generation

Uneconomic, capital-intensive, challenging to site, and difficult to finance without government support.

1. HALEU is 10-20% enriched Uranium-235, but the product relevant for comparison (i.e., Gen IV fuel) is 15-20% enrichment, i.e., HALEU (15-20)
2. "Urenco doubles expansion plans for uranium enrichment in the Netherlands. *World Nuclear News*, 20 Oct. 2025, https://www.world-nuclear-news.org/articles/urenco-doubles-expansion-plans-for-uranium-enrichment-in-the-Netherlands.

IMSR Uses Readily-Available and Inexpensive Standard-Assay Low-Enriched Uranium (SALEU) in its Fuel

Standard-Assay Low-Enriched Uranium SALEU		High-Assay Low-Enriched Uranium HALEU (15-20)
<5% U-235	Uranium-235 enrichment level	15-20% U-235
$2,700 / kgU[1]	Cost	$32,600 / kgU[1]
Terrestrial Energy IMSR (Gen IV), Gen II/III/III+ (light-water reactors)	Typical use case	Most other Gen IV reactors today require HALEU at 15-20% U-235
Known and straightforward (both production and transportation)	Regulatory requirements	Complex and uncertain (many regulatory protocols such as waste disposal and transport not yet developed)
Centrus (US) Framatome (US) Global Nuclear Fuel (US) Westinghouse (US) / Springfields (UK) Orano (Europe) Urenco (Europe)	Key suppliers for fleet deployment	US production insignificant compared to required quantities. Existing enrichment facilities cannot be modified to produce HALEU (15-20), entirely new facilities with higher Class 2 security[2] will require years to establish at high cost.

1. Norman et al. "How Much Does it Cost to Develop New Nuclear Fuel Capacity." *Third Way*, 28 June 2023, https://www.thirdway.org/blog/how-much-does-it-cost-to-develop-new-nuclear-fuel-capacity.
2. "Physical Security Requirements for Facilities with Category II Quantities of Special Nuclear Material Informational Sheet." NRC, https://www.nrc.gov/docs/ML2117/ML21172A282.pdf.

IMSR Plant at-a-Glance: High-temperature, Low-pressure Operation with High Inherent Safety Delivers Superior Capital Efficiency Over Legacy Nuclear and other Gen IV Technologies

585 °C

IMSR heat supply is best-in-class, vs 270-299 °C from Gen III+ and 440-585 °C from other Gen IV competitors

44% vs 30%

Electricity is generated up to ~50% more efficiently than legacy nuclear power plants

$8.6

Exceptional levelized cost of heat (LCOH) $8.6 per MMBtu[1]

$69

Exceptional levelized cost of electricity (LCOE) $69 per MWh(e)[1] for dispatchable/ base load applications

822 MWt

IMSR Plant provides co-located or near-location cogeneration at industrial scale
(822 MWt / 390 MWe net)

65 years

IMSR builds on over 65 years of proven, prototyped and demonstrated molten salt technology using innovative enhancements applied to the U.S. DOE's Oak Ridge National Lab's base design

50+ years

Long operational life of IMSR Plants

Fuel at standard enrichment

IMSR Plant uses standard-assay low enriched uranium (SALEU) in its fuel, readily available from North American and Western European sources

1. IMSR LCOE and LCOH are Terrestrial Energy's internal estimates at NCP status.

Contracts Entered with Leading Group of Suppliers for Services and Components

- Blue-chip service and major component suppliers support deployment readiness
- Awards to top-tier suppliers of engineering and operations services inspire nuclear market confidence
- Predominantly U.S. supply chain enables best use of local economic benefits and tax credits

Plant & Infrastructure	KSB; L3HARRIS; ptc; SIEMENS energy; BWXT (BWXT Canada Ltd.)
Nuclear fuel	orano; Westinghouse; urenco* (Nuclear Stewardship); Cameco
R&D	NRG (Nuclear. For life.); The University of Tennessee Knoxville; European Commission; INL (Idaho National Laboratory); Pacific Northwest National Laboratory; ANSTO; Argonne National Laboratory; Virginia Tech; Oak Ridge National Laboratory
Graphite	sgl carbon; IBIDEN; MERSEN; TOYO TANSO (Inspiration for Innovation); FRAZER-NASH CONSULTANCY (A KBR COMPANY)
Services	TÜVRheinland® Risktec; KINECTRICS; NUMERICAL ADVISORY SOLUTIONS (a Zachry Group company); AECON; HATCH; AECOM

*Tier 2 supplier; subcontractor to Westinghouse

Terrestrial Energy is Scaling Up its IMSR Plant Project Pipeline

- Market demand and policy developments are driving deployment in major markets
- Terrestrial Energy recent developments illustrate path-to-market, and strategy for fast deployment of an IMSR Plant fleet operating in the 2030s

Mining | Ammonia and hydrogen | Data centers | Capital goods | Utilities | Industrials

Basic materials | Petrochemicals and plastics | Marine propulsion | Chemicals | Fossil fuel retrofits | Merchant power

10+ Projects
- Off-takers/customers
- Consortium Partners
- Site owners

15+

10+ projects already formed from 15+ consortium relationships involved in projects, including potential customers seeking IMSR to meet power requirements and capable of delivering further projects.

50+

Portfolio of 50+ consortium relationships with the potential to deliver additional projects to deploy IMSR Plants covering a range of deployment use-cases including co-location for data center power supply, co-located industrial plant heat and power supply, and distributed on-grid generation

Recent commercial developments

CNSC CCSN	**CNSC VDR**	April 2023	Completion of CNSC's regulatory review of IMSR Plant
Oil Major	**Technology Development Agreement**	March 2024	Signs technology development agreement for industrial facility
100 Years of Zachry	**MOU**	August 2024	Signs MOU to collaborate on IMSR Plant development and deployment
EnergySolutions	**MOU**	November 2024	Signs MOU to collaborate on IMSR Plant development and deployment
ATM RELLIS Innovation & Tech Campus	**Public Announcement**	February 2025	Texas A&M announces plans to site a commercial IMSR Plant at its RELLIS campus
Ameresco	**Public Announcement**	June 2025	Partners with Ameresco for US site identification and IMSR plant project development, design, licensing, construction and operation
U.S. Department of Energy	**Public Announcement**	August 2025	Selected for DOE Office of Nuclear Energy Advanced Reactor Pilot Program for Accelerated Development
U.S.NRC United States Nuclear Regulatory Commission *Protecting People and the Environment*	**Public Announcement**	September 2025	NRC Completes Safety Evaluation and Approves Terrestrial Energy IMSR Principal Design Criteria
U.S. Department of Energy	**Public Announcement**	September 2025	Selected for DOE Office of Nuclear Energy Fuel Line Pilot Program, Advancing Comprehensive Nuclear Supply Chain Strategy
Westinghouse	**Public Announcement**	November 2025	Signed a manufacturing and supply contract with Westinghouse for the design and construction of an IMSR fuel pilot plant

Terrestrial Energy's Low-Capex Business Model Taps Four Revenue Streams Across the IMSR Plant's 50+ year Lifecycle

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%

Note: Unit economics reflect Terrestrial Energy management estimates at NCP status.

TERRESTRIAL
ENERGY

Compelling demand tailwinds for clean, firm power for grid robustness, national and energy security requirements, and from AI datacenter construction growth

Innovative, **proven IMSR technology with transformative potential for nuclear energy supply**

Strategic market opportunity with early mover advantage

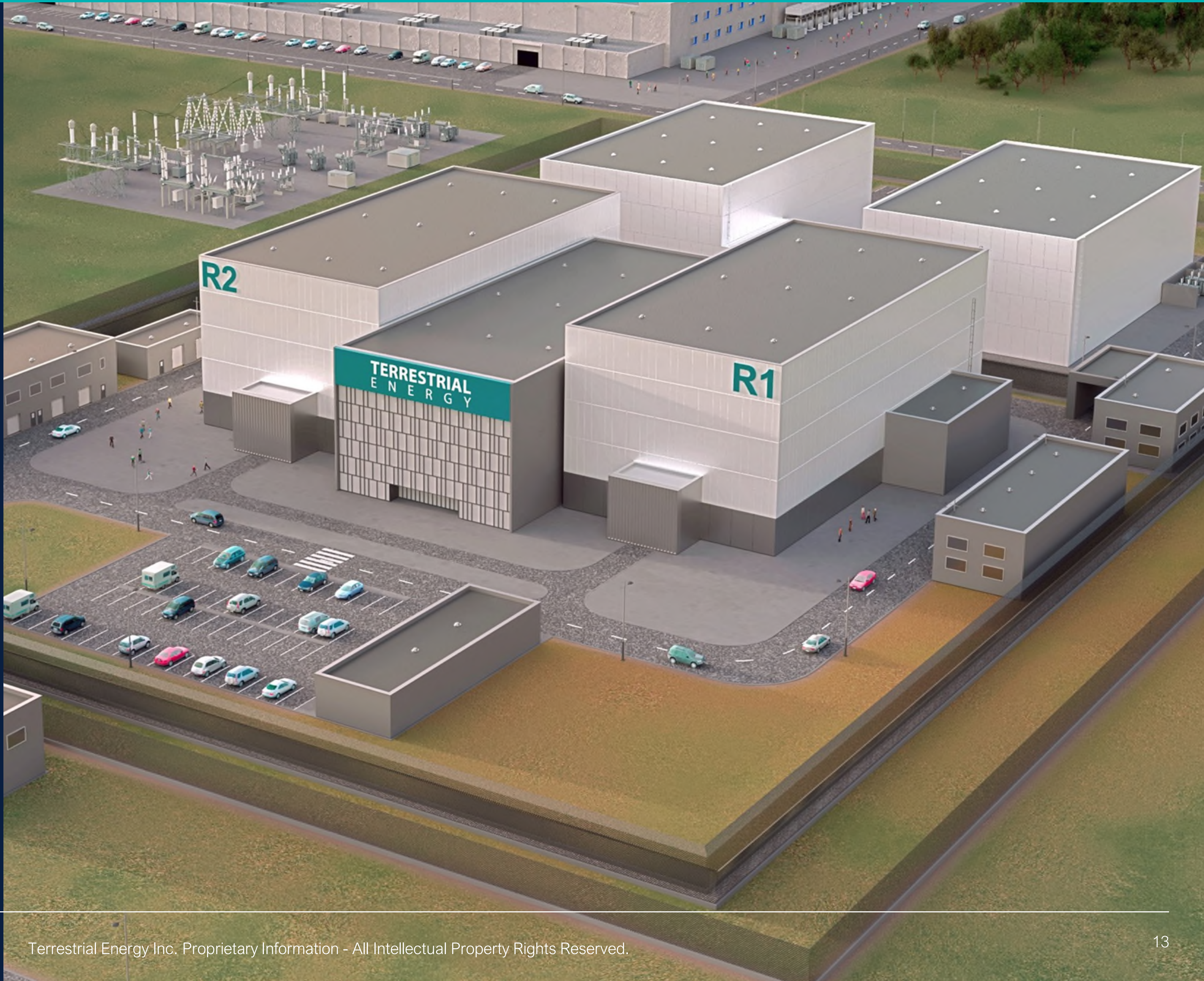
Multitrillion USD TAM potential across multiple market verticals and geographies for large economic upside

Strongly differentiated technology and plant design

Capex light business strategy for speed-to-market at scale and revenue growth

Experienced management team and a business with a 13-year operating record

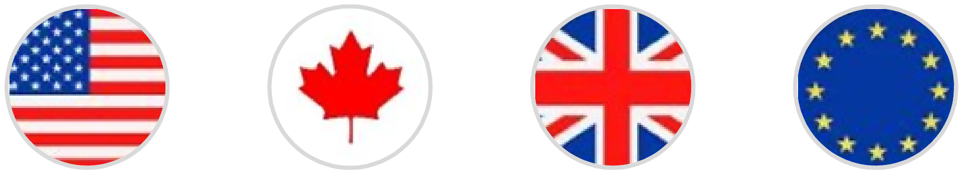
APPENDIX

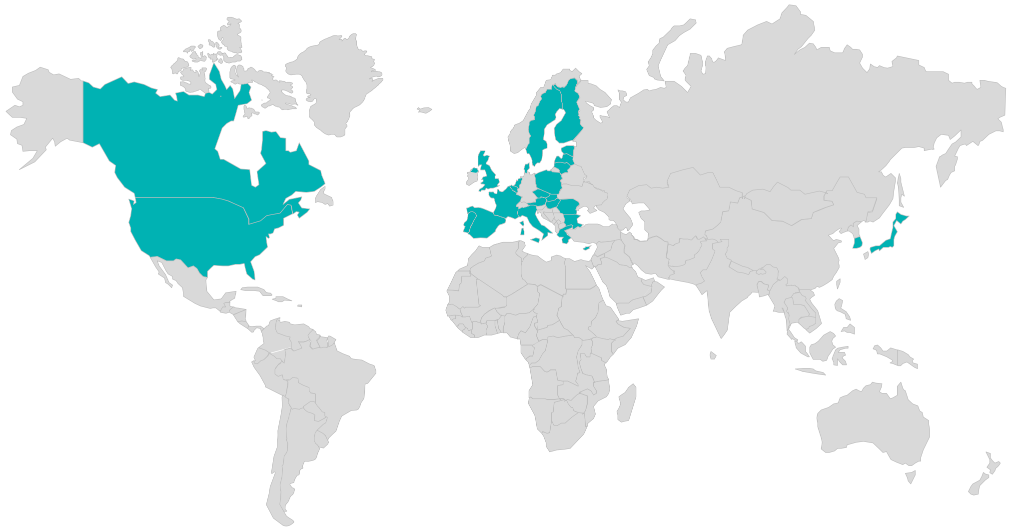


IMSR Plant Innovation Reaches New Markets and Sectors

The IMSR Plant has the operational capability to supply three key, large market verticals

Many markets showing clear policy support for nuclear energy





1 **Industrial heat and power**
Today, thermal energy (heat) for industrial processes is produced almost entirely from combustion of oil, coal, and natural gas – forming a large replacement market to be filled with IMSR Plants.

2 **Data center power supply**
Increasing demand for computing driven by the AI industry that requires near and co-located clean energy. IMSR Plants can be installed at near-location sites to supply electricity to data centers at giga-watt scale with baseload reliability, high-efficiency, and zero emissions.

3 **Coal plant replacements**
IMSR Plant at 390 MWe is suitably sized for industrial applications, data centers, and grid applications, including replacing aging fossil fuel plants. IMSR Plant is land-efficient – requiring a fraction of the physical footprint of legacy plants – which further increases siting flexibility.

The IMSR Plant is small and modular for fast construction and ease of deployment. It is ideally suited for deployment close to point of demand, whether a large industrial plant requiring heat and/or power, a data center, or for grid generation at points of congestion, generating clean firm electric power with high efficiency while minimizing transmission access obstacles.

IMSR Plant Serves Two Vast and Linked Markets: Industrial Process Heat ($0.8 T) and Electricity ($0.6 T) in OECD Economies

$1.4 T

Current SAM[1]

Total serviceable addressable market (SAM) for IMSR Plants is expected to grow 35% to $1.9 T by 2050[1]

OECD industrial heat market ($800 B)	OECD electricity market ($600 B)

Industrials require clean firm low-cost thermal energy at high-temperatures for manufacturing processes. This is beyond the capabilities of legacy nuclear plants and today it is almost universally supplied with fossil fuel combustion.

IMSR Plants deliver best-in-class high-temperature thermal output, which can replace fossil fuel combustion in many industrial processes. This output also enables electricity generation at up to 50% higher efficiency than legacy nuclear for transformative capital efficiency and cost improvement.

Designed to separate the nuclear and thermal/electric systems, the IMSR Plant can be built initially to supply steam from natural gas combustion, then later be switched to nuclear energy, allowing rapid initial deployment and without requiring nuclear regulatory re-approval, to "cogenerate" both high-temperature heat and low-cost electricity for industrial use.

IMSR Plants provide clean, firm electric power for industrial and municipal use. It is a logical solution for large data center supply and for coal plant replacement.

IMSR Plant output can rapidly load-follow (i.e., adjusts its output to demand) and the plant Thermal and Electric Facility (TEF) can be hybridized with other energy systems and supply, such as natural gas and renewables.

IMSR Plants enable distributed generation as they are deployable at or near industrial site, including co-located for dedicated industrial heat and power supply.

IMSR Plant design is small and modular, which enables fast construction and decentralized generation at individual industrial sites, coal plant sites, data centers, and for smaller grids/electrical markets.

IMSR Plants have a 50+ year operating life, which is expected to be more competitive than coal-fired power generation fuel supply, inclusive of fuel and transportation costs.

1. Company internal projection.

IMSR Plant's Technology and Design Choices Drive Large Economic Advantages

- High thermal stability of molten salt enables safe high-temperature and low-pressure operation with high inherent safety, which drives high capital and operating efficiencies, as well as power plant revenue and profitability
- TEF flexibility enables integration of natural gas as a bridge to rapid commercial operation and use as back-up during nuclear systems' operation
- The IMSR Plant at 390 MWe is ideally suited for industrial applications, data centers, and grid applications, including replacing fossil plants
- The IMSR Plant is modular with factory-built components for faster on-site assembly. It is land-use efficient – requiring a fraction of the physical footprint of conventional plants – enabling siting flexibility, lower capital costs, and shorter construction schedules

MOLTEN SALT COOLANT

Superior reactor coolant

- High thermal stability
- High radiation stability
- High heat capacity

A — High inherent safety in Plant operations

Use of a molten salt coolant and fuel delivers high inherent safety

- Negative temperature coefficient of reactivity for inherent power control and load-following
- Fluid convection supports passive dissipation of fuel heat

B — Low pressure → Lower Plant Capex

No high-pressure nuclear systems, structures, or components

- Plant simplification
- Lower costs, quicker construction time and more financeable

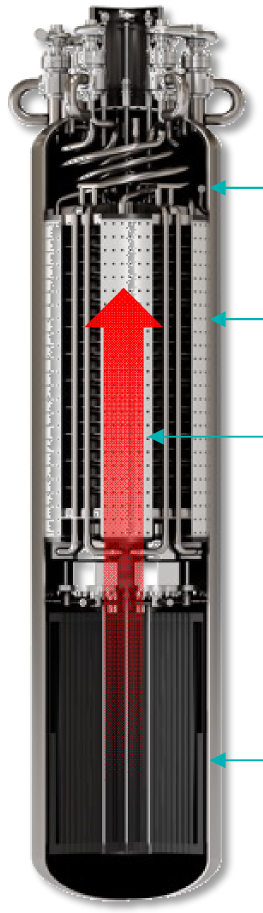
C — High temperature → Increased Plant revenues

Operates at high temperature for up to 50% greater steam turbine efficiency vs. legacy nuclear

- Generates up to 50% more kWh(e)s for more revenues
- More capital efficient and profitable operation

Innovative and Patented Replaceable IMSR "Core-unit" Solves the Key Industrial Maintenance Challenge for the MSR, Releasing the technology's commercial potential

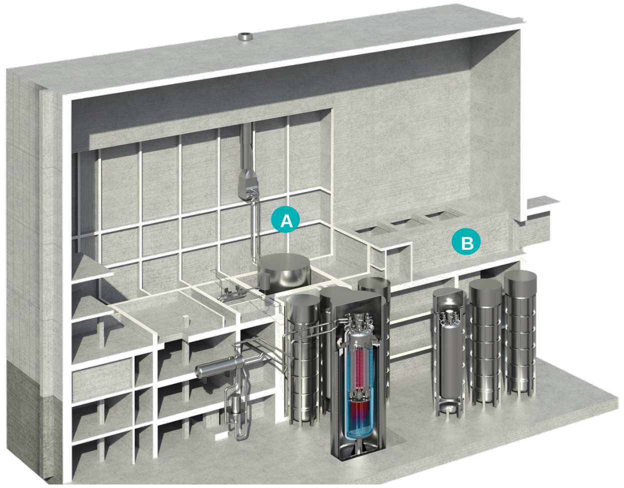
01 | IMSR Core-unit cut-away (illustrative)



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 strong IP
  - 90 patents pending or granted across 6 invention families

02 | Cut-away reactor building, one of two in the IMSR Plant (illustrative)



The sealed IMSR Core-unit innovation delivers safety and operational simplicity for commercial operation

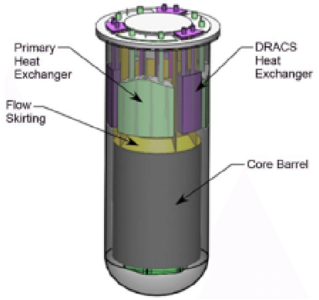
- Each Reactor Building houses one reactor (A) operating in one of two operating silos along with storage for six IMSR Core-units (B) arranged in two rows of three.
- At the end of each 7-year cycle, the spent IMSR Core-unit is swapped with a new one previously installed in the adjacent operating silo in a planned, safe, and efficient manner.
- Consequently, eight IMSR Core-units can be operated sequentially over the 56-year plant lifetime

IMSR is Built on 65 Years of National Lab Proven and Demonstrated MSR Technology

1958-1969

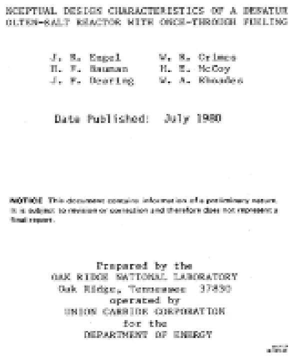
Molten Salt Reactor (MSR) research program started in the 1950s[1, 2]

- Molten Salt Reactor Experiment (MSRE) at Oak Ridge National Laboratory (ORNL) highly successful and lays foundation for future molten salt reactor designs
- Built/operated for 13,000 hours



2010

- ORNL pre-conceptual design for Small Modular Advanced High-Temperature Reactor (Sm-AHTR), using solid fuel and molten salt cooling[4]
- Key innovation: Cartridge core design


NCEPTUAL DESIGN CHARACTERISTICS OF A DENATUR
OLTEN-SALT REACTOR WITH ONCE-THROUGH FUELING

J. R. Engel W. R. Grimes
H. F. Bauman H. E. McCoy
J. F. Dearing W. A. Rhoades

Date Published: July 1980

Prepared by the
OAK RIDGE NATIONAL LABORATORY
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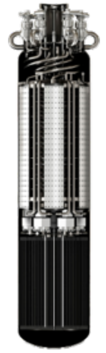
operated by
UNION CARBIDE CORPORATION
for the
DEPARTMENT OF ENERGY

1980

- Denatured Molten Salt Reactor (DMSR)[3] conceptual design developed at ORNL
- Key innovation: Use of SALEU with a once-through fuel cycle for strong proliferation defenses



>2012

Terrestrial Energy's IMSR combines these critical innovations

- Use of SALEU fuel with a once-through fuel cycle
- Integral core architecture

IMSR is a molten salt reactor that uses:

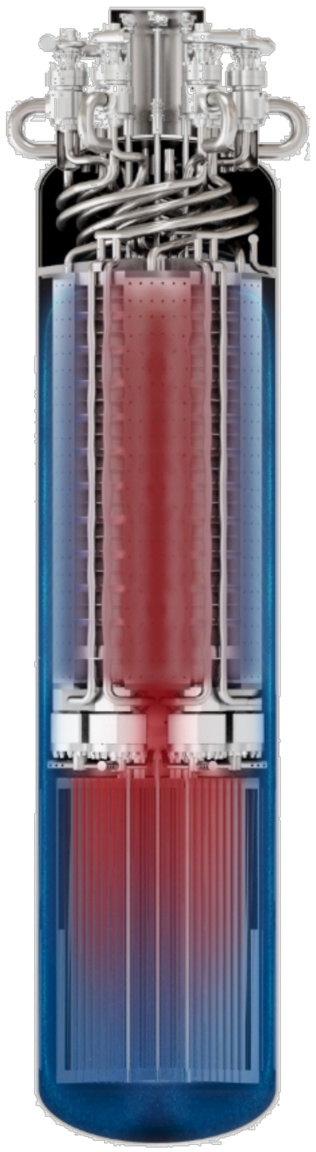
- Fluoride salt chemistry
- SALEU-fueled once-through fuel cycle
- Thermal spectrum
- Graphite moderator
- Integral reactor core architecture

1. "A Look Back: The Molten Salt Reactor Experiment." *ORNL*, 01 June 2016, https://www.ornl.gov/molten-salt-reactor/history.
2. "ORNL-2474 Molten-Salt Reactor Program Quarterly Progress." *ORNL*, https://energyfromthorium.com/pdf/MSRP-TOC.pdf.
3. Engel et al. "Conceptual Design Characteristics of a Denatured Molten-Salt Reactor with Once-Through Fueling." *ORNL*, July 1980, https://www.osti.gov/servlets/purl/5352526.
4. Greene et al. "Pre-Conceptual Design of a FluorideSalt-Cooled Small Modular Advanced High-Temperature Reactor (SmAHTR)." *ORNL*, Dec. 2010, https://info.ornl.gov/sites/publications/files/Pub26178.pdf.

Source: ResearchGate; ORNL; Company

Compared to Legacy Nuclear Technology, IMSR Offers Transformative Advantages on a Range of Technical and Economic Factors

- IMSR's key technology advantage is from the use of a molten salt coolant and fuel
- Molten salt is a superior coolant relative to traditional cooling mechanisms of legacy nuclear (based on water, pumps, actuators, etc.) and is foundational to the compelling economic and use-case advantages of the IMSR Plant

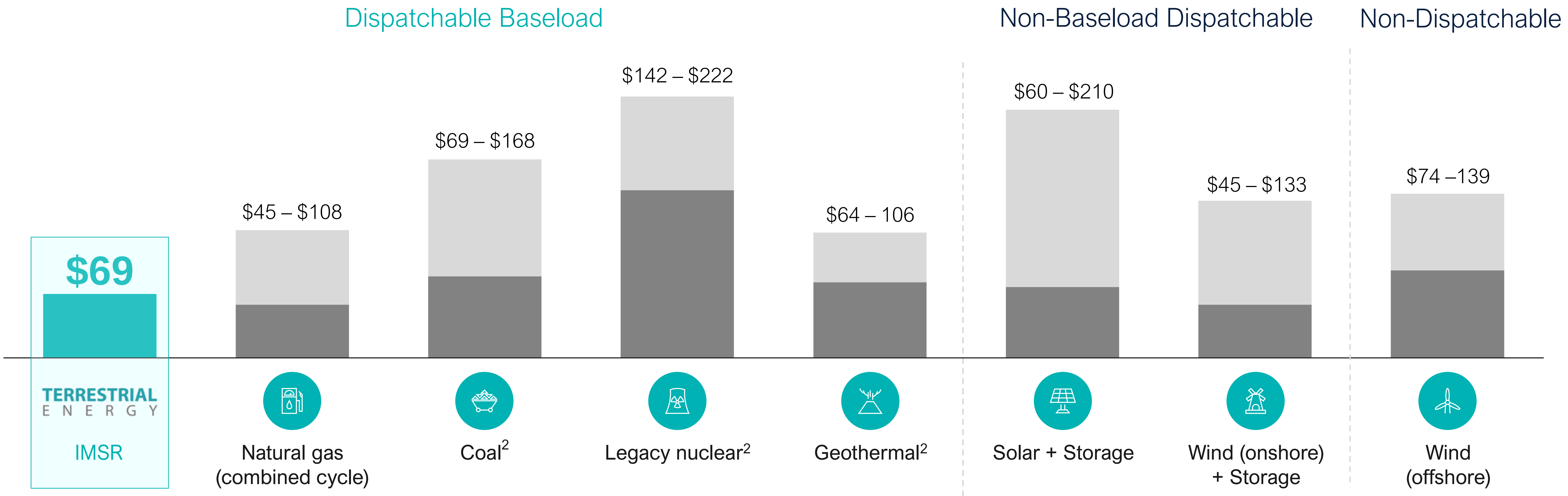


	IMSR Plant	Legacy Nuclear Plant
Coolant	Molten Salt	Water
Temperature of Thermal Supply	585°C	~270°C
Net Thermal Efficiency of Electricity Generation	44%	~30%
Pressure	Low: 1 bar (atmospheric)	High: 55-150 bar
Application	Industrial heat & electric power	Electric power only
Modularity	Standardized, factory prod.	Bespoke on one-off basis
Inherent load-following	Yes	No
Construction & Commissioning Time	Under 4 Years	~10 Years
Unit Capital Cost	~$1-2 B upfront[1]	Over $10 B upfront
Capacity (net)	822 MWt / 390 MWe	1,000+ MWe
Levelized Cost of Heat ($/MMBTU)	8.60	N/A
Levelized Cost of Electricity ($/MWh)	69	Over 140[2]
Fuel Cycle	7 years	18-24 months
Waste	32% less fission product waste per kWh(e) by mass	Baseline waste quantities

1. Range for IMSR reflects estimated unit capital cost to the owner-operator at Nth Commercial Plant (NCP) status based on Terrestrial Energy internal estimates.
2. "Levelized Cost of Energy+." *Lazard*, June 2024, https://www.lazard.com/media/xemfey0k/lazards-lcoeplus-june-2024-_vf.pdf.

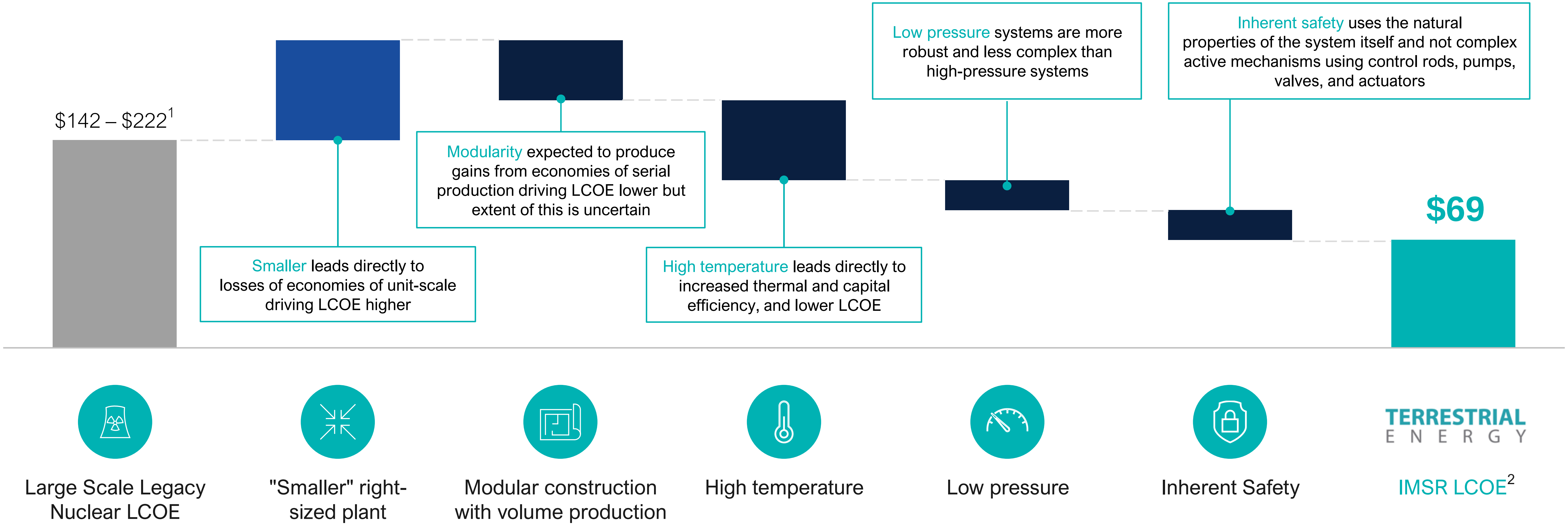
At Fleet Scales, IMSR Plant Offers Clean Firm Efficient Electricity Generation at the Cost and Scale Required

Unsubsidized high and low levelized cost of electricity (LCOE) across multiple power generation sources ($ / MWhe)[1]



1. IMSR LCOE is Terrestrial Energy's internal estimate at NCP status. All other ranges are from the Lazard 2024 LCOE+ report.
2. Lazard 2024 LCOE+ report indicates limited public and/or observable data available for new-build geothermal, coal, and nuclear projects.

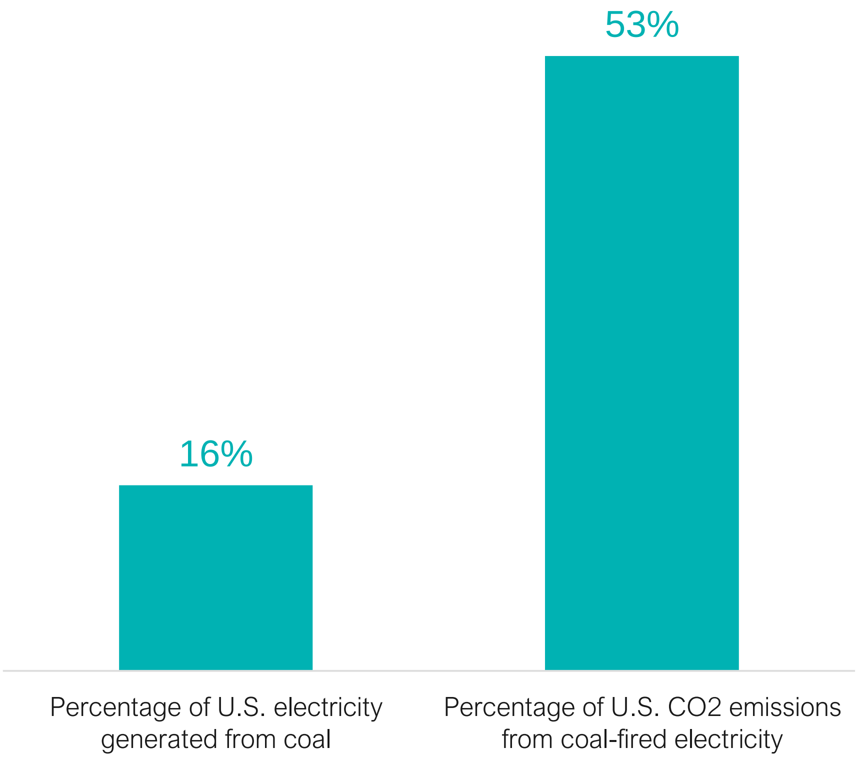
IMSR Technology Fundamentals Drive Down the LCOE – Illustrative



1. "Levelized Cost of Energy+." *Lazard*, June 2024, https://www.lazard.com/media/xemfey0k/lazards-lcoeplus-june-2024-_vf.pdf.
2. IMSR LCOE is Terrestrial Energy's internal estimate at NCP status.

IMSR Plants can Uniquely “Retrofit” Existing Coal Plants for Carbon-free and Air Pollution-free Electricity Generation

Coal is dirty yet essential[1,2]



Nuclear in general and IMSR in particular are an ideal “hand-in-glove” solution[3]

U.S. DEPARTMENT of ENERGY

In 2022, U.S. DOE commissioned a report that found:

- 80% of all retired and operating coal power plant sites can host an advanced nuclear reactor
- Significant primary and secondary environmental and economic benefits of IMSR

TERRESTRIAL ENERGY

- IMSR Plants supply steam at 585 °C, the equivalent temperature and pressure of a coal-fired steam boiler
- IMSR Plant’s separation of Nuclear Facility from non-nuclear Thermal and Electric Facility (TEF) ideal to retrofit coal plants

Retrofitting coal-to-nuclear results in significant primary and secondary benefits[2]

86%
Reduction in greenhouse gas emissions per region

650
Permanent new jobs created per region

$275M
Additional economic activity per region

92%
Implied increase in tax revenue per region

15-35%
Capital costs savings vs. greenfield due to ability to reuse existing equipment and infrastructure

1. “What is U.S. electricity generation by energy source?.” *US Energy Information Administration*, 29 Feb. 2024, https://www.eia.gov/tools/faqs/faq.php?id=427&t=3.
2. “How much of U.S. carbon dioxide emissions are associated with electricity generation?.” *US Energy Information Administration*, 30 Nov. 2023, https://www.eia.gov/tools/faqs/faq.php?id=77&t=2.
3. Hansen et al. “Investigating Benefits and Challenges of Converting Retiring Coal Plants into Nuclear Plants.” *US Department of Energy*, 13 Sep. 2022, https://fuelcycleoptions.inl.gov/SiteAssets/SitePages/Home/C2N2022Report.pdf.

Milestone Progress

Systematic development program for IMSR Plant with a 10-year track record of milestones achieved

2015
- ✓ Initiated regulatory engagement with the Canadian Nuclear Safety Commission (CNSC) submitting the IMSR Plant design for Phase I of its Vendor Design Review (VDR) process

2016
- ✓ Began formal pre-licensing regulatory engagement with the CNSC for the IMSR design under the VDR framework.

2019
- ✓ IMSR Plant selected by USNRC and CNSC for first joint and collaborative cross-border next-generation reactor technology reviews

2020
- ✓ Signed MOU with Centrus Energy Corp. for fuel-supply logistics and standard-assay LEU (SALEU) for IMSR Plants

2021
- ✓ BWXT, Siemens, Orano, Aecon, Cameco, KSB, Westinghouse contracted for major components supply a part of IMSR supplier consortium

2023
- ✓ CNSC completed the IMSR VDR, concluding there are "no fundamental barriers to licensing" the design for commercial use — the first Gen IV molten salt reactor design to reach that stage
- ✓ Entered manufacturing and supply contract with Westinghouse to design and build a pilot fuel plant for the IMSR fleet

2024
- ✓ Entered an MOU with Zachry Group to accelerate IMSR Plant development and deployment (engineering, construction, site readiness)
- ✓ Entered an MOU with EnergySolutions for siting IMSR Plants at brown-field nuclear sites owned by EnergySolutions, targeting industrial cogeneration (heat & power) applications

2025
- ✓ Selected by the Texas A&M University System to site a first commercial IMSR Plant at RELLIS Campus
- ✓ Announced a collaboration with Ameresco, Inc. to develop IMSR Plant projects focused on customized energy supply for data centers and industrial heat markets (hybrid solutions with natural gas)
- ✓ Opened new U.S. headquarters in Charlotte, NC, expanding U.S. domestic supply-chain engagement and manufacturing partnerships
- ✓ Selected by the U.S. Department of Energy for participation in the **Advanced Reactor Pilot Program (ARPP)** to accelerate development and demonstration of the IMSR technology
- ✓ Selected by the U.S. Department of Energy to participate in **Fuel Line Pilot Program** to advance the Company's objective to develop proprietary production capabilities for IMSR fuel supply
- ✓ **The NRC approved the Principal Design Criteria (PDC) for the Terrestrial Energy IMSR**, marking a significant step toward licensing and commercialization of the IMSR Plant
- ✓ Completed business combination with HCM II Acquisition Corp., **securing $292M of gross proceeds for IMSR commercialization and a Nasdaq public listing under "IMSR"**

2026 and Beyond
- Construction of first commercial IMSR Plant commences with operations planned in the early 2030s
- Focus moves to fleet deployments in support of industrial heat and data-center energy supply, and modular nuclear replacement for coal plants

Terrestrial Energy — A Market Leader in Regulatory Engagement for Gen IV Reactors

Terrestrial Energy was the first Gen IV nuclear plant developer to receive a completed nuclear regulatory review

ACTIVE ENGAGEMENT – UNITED STATES

- U.S. NRC engagement since 2017, with technical reviews, White Papers, and Topical Reports
- First Gen IV reactor chosen for joint U.S. NRC/CNSC review (2021)
- U.S. NRC issued its Safety Evaluation and approved the Principal Design Criteria (PDC) for Terrestrial Energy's IMSR (2025)
- Pre-application activities underway toward Standard Design Approval

INTERNATIONAL ALIGNMENT

- IAEA engagement began in 2020, aligning IMSR with international nuclear safety frameworks
- Supports deployments outside North American markets

COMPLETED REGULATORY REVIEW – CANADA

- First Gen IV reactor to complete the Canadian Nuclear Safety Commission (CNSC) Vendor Design Review (VDR) in 2023
- CNSC conclusion: *"No fundamental barriers to licensing"* IMSR Plant for commercial use
- Established a clear licensing pathway for future IMSR deployment in Canada and precedent for successful regulatory engagement in other markets

IMSR has the Potential to Transform Nuclear Energy Supply

Generation I
Prototype reactors

- Based on U.S. Navy nuclear submarine propulsion or weapons production technology
- Largely research and/or non-commercial

UK Atomic Energy Authority

1950s

Generation II
Large commercial reactors

- Most operating reactors in use today
- Relies on active safety
- Electric grid applications

framatome
Westinghouse

1960s – 1990s

Generation III
Evolutionary commercial reactors

- Evolutionary improvements in design, safety and efficiency
- Electric grid applications

HITACHI
KEPCO
TOSHIBA
AECL

1990s – 2010s

Generation III+
Gen III with evolutionary improvements (inc. SMRs)

- Evolutionary improvements with some modularity and passive safety
- Includes SMRs
- Electric grid applications

Westinghouse
NUSCALE
MITSUBISHI HEAVY INDUSTRIES
AREVA

2010s – present

Generation IV
Next-gen advanced modular reactors (AMRs)

Potential for transformative economic improvement through high Inherent safety with multiple industrial uses (heat and/or power)

High-temperature reactors*

TERRESTRIAL ENERGY

Late 2020s – onward

*High temperature steam sufficient for chemical processes produced by IMSR and high temperature gas reactors

Business Model

Revenues start well before construction at site development project stage and last for the entire operation of the plant

Terrestrial Energy's business is to:

- Supply engineering services for construction and operation of IMSR Plants
- Supply key nuclear components and fuel for construction and operation of IMSR Plants
- Provide a long-term supply of replacement IMSR Core-units and IMSR fuel, as well as operating and maintenance (O&M), and decommissioning services

Terrestrial Energy's customers are site developers, IMSR Plant project developers, and owner-operators

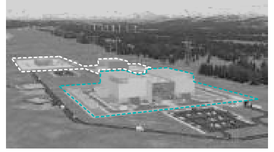
Full project lifecycle

Site and Project Development

Development Scope and Services

- Terrestrial Energy's scope: 30% of total IMSR Plant cost
- EPC Firms, component suppliers, service providers: 70% of IMSR Plant cost
- Supply of services
- Supply of components

Site selection & Feasibility Contract



Site-specific Engineering and Licensing Support Contract

Pre-construction revenues

Engineering Construction and Procurement Contract

Construction

IMSR Plant Operations

Life of Plant Services

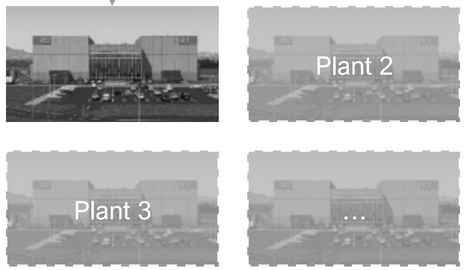
- IMSR Core-unit supply every 7 years
- IMSR Plant O&M services
- IMSR Fuel Salt
- Refueling services

IMSR Plant Maintenance Contract

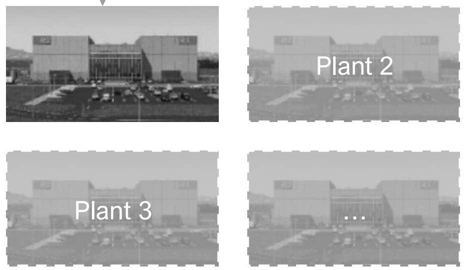
IMSR Plant Supply Contract

Supply of IMSR Core-units

56-year plant life



Customer A
Investors



Customer B
Investors

- Plant construction is financed by IMSR Plant site and project developers, and off takers
- End-users are industrial, technology, municipal, and utility off takers requiring firm, clean, low-cost high-temperature heat and/or electrical power from a near-site location
- Standardized and modular nuclear systems and components support fast plant construction, and time and cost efficiencies when scaling deployment across multiple sites with minimal site-specific customization of nuclear systems

IMSR Captures Inherent Nuclear Safety, Unlike Legacy Nuclear Technologies

IMSR Plant technology and design incorporates inherent nuclear safety, with compelling cost and commercial advantages over the active and passive safety requirements of legacy nuclear technology

Control

IMSR fission heat generation is inherently load-following. Fission power immediately drops to zero when heat demand ceases without operator intervention

Cool

Molten salts have exceptional thermal stability and are superior reactor coolants. As the fuel is in molten form, it uniquely enables inherent nuclear fuel cooling through convection. In addition, passive cooling systems remove decay heat from the reactor vessel

Contain

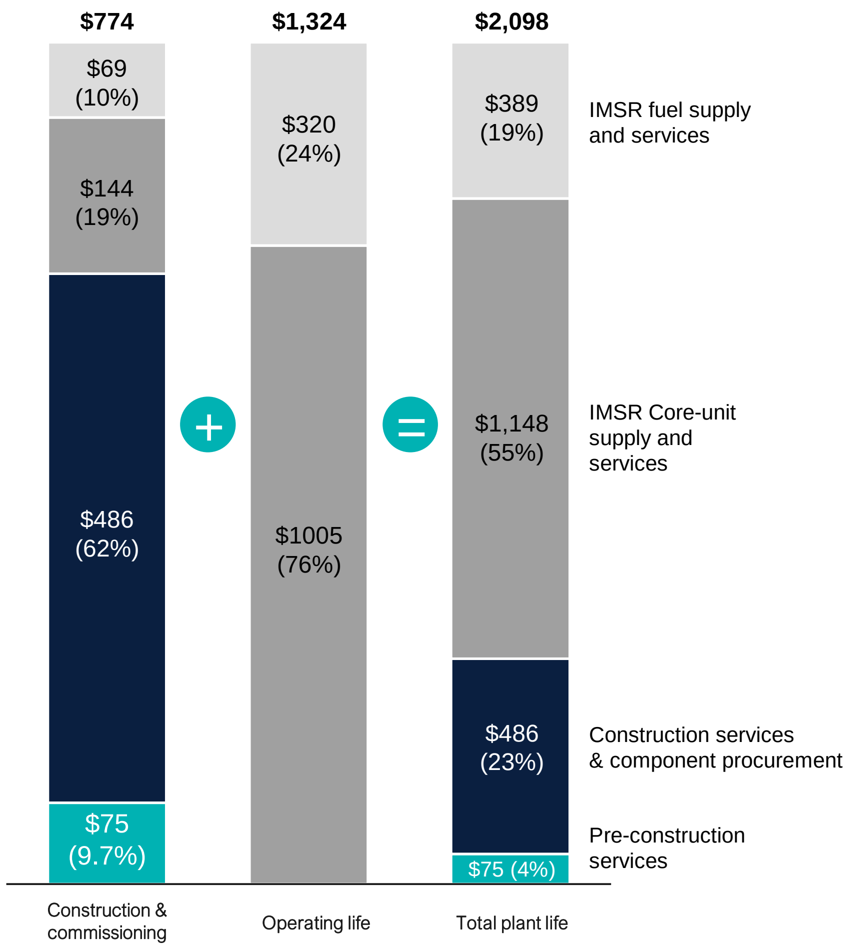
Molten salt reactors enable the use of low-pressure cooling systems. As the fuel is mixed with the coolant, fission products are inherently contained by salt chemistry – this simplifies engineering and containment requirements

IMSR inherent safety methods create a robust safety framework and reduce Capex of nuclear energy across all three safety pillars for commercial reactor operation

Illustrative IMSR Plant Unit Economics (USD M)

($ 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%*

Revenue breakdown by phase



A proven leadership team

Terrestrial Energy Leadership

A leadership team with extensive experience across scientific, commercial, and policy realms

Simon Irish

CEO, Director

- Extensive investment banking and investment management experience
- Former U.S. investment head of a leading global investment business

David LeBlanc, PhD

CTO, Director

- Globally recognized expert leader on molten salt reactors
- Sole private sector member to Gen IV International Forum inter-government research group on advanced reactors

William Smith, P. Eng.

COO

- Over 40 years experience in nuclear energy
- Former SVP of Siemens Energy Canada
- Former VP at Ontario Power Generation

Brian Thrasher

CFO

- Over 25 years of financial management experience holding executive management positions at multibillion-dollar companies
- Former CFO at Hilco Transport, Inc.

Steve Millsap

General Counsel, Secretary, & Chief Compliance Officer

- Over 27 years of broad-based legal experience, including 24 years as in-house counsel to industry-leading private and public companies in the technology, industrial, manufacturing, automotive, aerospace, and consumer products sectors

Robin Rickman

VP Business Strategy

- Over 40 years of nuclear experience, including with U.S. Navy/DoD, U.S. DoE, and private sector
- Former Director of Westinghouse New Reactor Projects

A proven leadership team

Terrestrial Energy Leadership

A leadership team with extensive experience across scientific, commercial, and policy realms

Iftikhar Haque

VP Nuclear Supply Chain

- Over 35 years of supply chain experience, over 20 in the utilities sector as a supply chain leader
- Former VP supply chain at multiple utilities and suppliers

David O'Keefe

VP Business Development & Project Management

- Over 25 years of experience in the energy industry, including the nuclear fuel cycle and wholesale electric power
- Former Director of Business Development at Centrus Energy Corp

Dara Harrison

VP Human Resources

- Over 20 years of human resources experience supporting the engineering and energy industries within the United States and Canada
- Former HR leader at many companies including Eaton, AtkinsRéalis and Fluor

Sarfraz Taj

VP Business Development

- Over 20 years of nuclear experience, including supporting operating reactors, project development, and corporate transactions
- Former Director of M&A and Strategic Projects at Constellation Energy

Frank Akstulewicz

Licensing Manager

- Over 40 years of experience in with the NRC, serving in numerous executive leadership and staff positions within the agency
- Former Branch Chief of the Nuclear Performance and Code Review Branch in NRR

Jim Howe

VP Government Relations

- Over 20 years of experience in Washington, DC, serving in government affairs, policymaking, advocacy, and communications roles

Glossary

Term	Definition
Base load	The minimum amount of electric power delivered or required over a given time period at a steady rate.
Core-unit	The term to denote the vessel that contains the primary components of the IMSR, the reactor core, heat exchangers, pumps, etc.
DOE and LPO	The United States Department of Energy, and its affiliated Loan Programs Office, which provides loan guarantees to assist in financing energy infrastructure projects.
FCP/NCP	An engineering concept referring to First Commercial Plant and Nth Commercial Plant, reflecting the reduction in price as processes mature and companies proceed along the learning curve. Terrestrial Energy's unit economics are based on NCP estimates, projected to be achieved at the 20th IMSR Plant.
Full lifecycle	The full lifespan of a specific plant, including pre-construction, construction, operations, and decommissioning.
Gen IV	Generation IV nuclear technology, which improves upon Generation III+ technologies (current reactors) through two important improvements: 1) ability to generate high-temperature heat (>400 °C) appropriate for use in industrial applications, and 2) high inherent safety incorporated into the design, versus active and passive safety systems of previous generations. Generation IV technology governed by the Generation IV International Forum, an intergovernmental forum representing 40 countries.
HALEU (15 -20)	HALEU (15 – 20) stands for "High-Assay Low Enriched Uranium" enriched to 15-20% (>15% is required for several other Gen IV nuclear technology)
SALEU	SALEU stands for "Standard-Assay Low Enriched Uranium", which is U-235 which has been enriched to <5%. Currently. SALEU is readily commercially available from North American and Western European suppliers.
Inherent safety	A proactive approach to process safety in which hazards are eliminated or lessened to reduce risk without engineered or procedural intervention. A nuclear reactor with high inherent safety may rely upon natural phenomenon such as natural circulation or negative feedback power coefficients to achieve a safe state as opposed to older plants that use active safety (e.g. pumps, actuators, valves) to manage risk.
kWe/MWe vs. kWth/MWth	The distinction between power being generated for electricity ("e") versus for thermal/heat ("th"). Generating electricity is a direct function of the thermal efficiency of the plant. In the IMSR's case, the plant generates 822 MWth or 390 MWe.
kWh/MWh	Kilowatt-hour / megawatt-hour, or the production of that amount of energy for an hour.
LCOE	Levelized cost of electricity. A measure of the all-in cost of electricity generation to the owner/operator over the life cycle of the plant, including upfront CAPEX, ongoing OPEX, etc.
Legacy nuclear	Nuclear reactor technologies used in the market today, such as Boiling Water Reactors and Pressurized Water Reactors. They are classified as "Generation III+" or below.
Load-following	A power plant that can adjust its power output on demand.
U.S. NRC / CNSC	United States Nuclear Regulatory Commission and Canadian Nuclear Safety Commission, respectively, government agencies of their respective countries tasked with regulating civilian uses of nuclear energy.
OECD	Organisation of Economic Co-operation and Development, a multilateral organization of 38 member countries, the majority of which are high-income economies.
Utilization factor	A measure of "uptime" for a facility, which reflects total operating time less planned and unplanned downtime for maintenance, etc. Utilization factors of 90-95% are typical for nuclear power plants.
VDR	Vendor Design Review. A voluntary high-level review process offered by the CNSC to provide pre-licensing feedback regarding the extent to which the reactor design meets CNSC requirements.

TERRESTRIAL
ENERGY

Making transformative nuclear energy a commercial reality

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