



TERRESTRIAL ENERGY

Delivering affordable nuclear at scale

JULY 2026

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Investment summary



The most capital-efficient SMR for rapid deployment at scale

Terrestrial Energy is an SMR developer whose proprietary Integral Molten Salt Reactor (IMSR), a Generation IV technology, delivers low-cost nuclear energy. Its use of readily available LEU fuel, modular design for fast construction, and regulatory leadership position it for rapid deployment at fleet scale.



Clean firm high-temperature thermal energy and electric power generated ~50% more efficiently

IMSR Plants supply clean firm thermal energy and electricity directly to industry. High-temperature (585°C) thermal energy supply delivers ~50% greater steam-turbine efficiency than nuclear plants that use light-water reactor technology.



Capital-light model targeting a \$2.3T Serviceable Addressable Market

Terrestrial Energy's capital-light model captures a Serviceable Addressable Market growing to \$2.3T by 2050 with revenues starting during site development and construction, and extending 50+ years over IMSR Plant operating life with component, fuel, and O&M services supply



Decade plus track record of nuclear plant design, supplier and regulatory development

IMSR Plant now benefiting from Terrestrial Energy's decade plus track record of design, supply chain and regulatory development. Company's management team has delivered multiple consequential milestones including those from engagement with U.S. and Canadian nuclear regulators

\$1.6T
current SAM

Total Serviceable Addressable Market (SAM) for IMSR Plants is expected to grow 47% to \$2.3T by 2050



OECD
industrial heat market
(\$1,200B)

+



OECD
electricity market
(\$1,100B)

The IMSR Plant's unique attributes allow it to address both industrial heat and electricity markets

Firm & Low-Cost

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

High Temperature

IMSR Plants have high-temperature thermal output, creating an alternative to fossil fuel combustion in many industrial processes. This also enables electricity generation at up to 50% higher efficiency than LWR nuclear plants for transformative economic improvement

50+ Year Life

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

Deployable

IMSR Plants enable distributed generation as they are deployable at or near industrial site, including "behind the fence" for dedicated industrial heat and power supply

Modular

IMSR Plant design is smaller to be right-sized for today's deployment opportunity and modular in design for fast construction and decentralized generation at individual industrial sites, coal plant sites, data centers, for grids

Clean

IMSR Plant provides clean firm electric power for industry and municipal use. It is a logical solution for near- and co-located large data center supply and for coal plant replacement, two large markets

Customized

IMSR Plant heat and steam supply systems can be customized without requiring nuclear regulatory re-approval, to deliver a customized mix of high-temperature heat and low-cost electricity for industrial use

Load Following

IMSR Plant output can rapidly load-follow (i.e., adjusts its output to demand) for hybrid installations integrating intermittent renewable generation to deliver clean firm power to grid

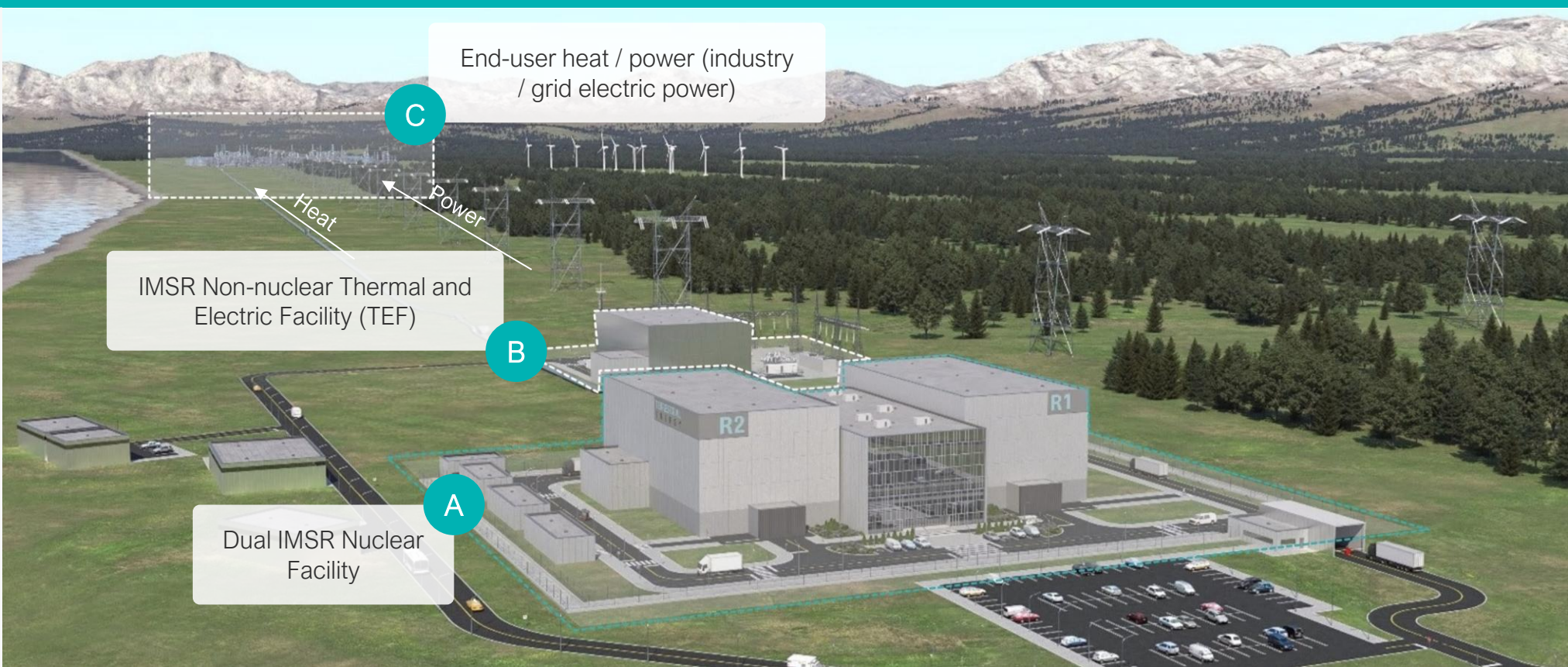


IMSR Plant is designed for fast delivery of energy solutions to industry

Separation of nuclear from thermal and electrical systems allows:

- Allows end-user flexibility to customize thermal and electricity supply
- Provides an attractive pathway for coal plant conversion
- Allows for hybridization with other energy systems, including natural gas and renewables, facilitating the delivery of electric power within five years.

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



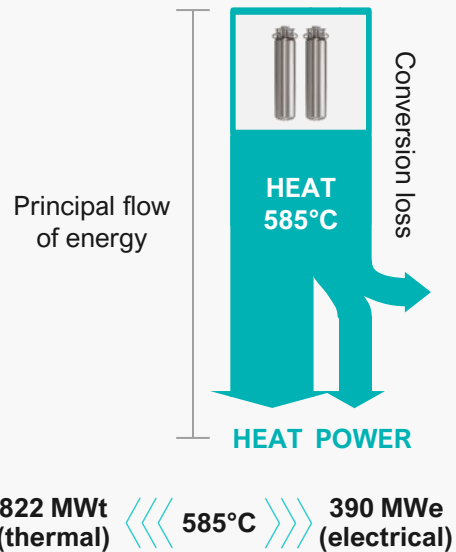
- A

Standardized IMSR Nuclear Facility
 - Subject to nuclear regulation
 - Standardized, simplified design reduces costs
 - 822 MW (net) thermal energy production from twin IMSRs
- B

Customized non-nuclear Thermal and Electric Facility (TEF)
 - Converts thermal energy 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 LWRs
 - 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
 - Data centers
 - Chemical and petrochemical plant
 - Other industrials requiring clean firm heat & power

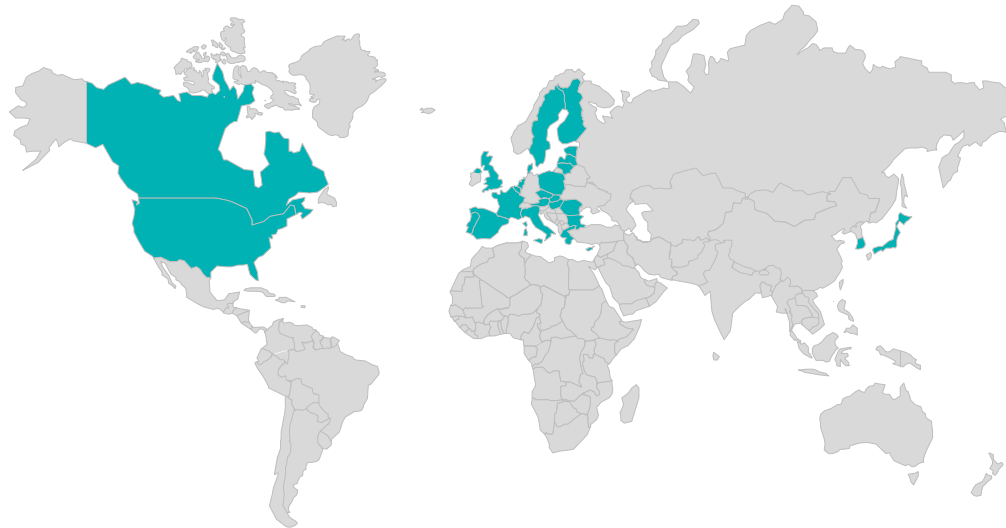
Prospective off-takers
 - Electric grid, from coal conversion



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

Data center power supply

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

2

Industrial heat and power

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

3

Coal plant replacements

IMSR Plant at 390 MWe is suitably sized for data centers, industrial applications, and grid applications, including replacing aging fossil fuel plants. IMSR Plant is land-efficient – requiring a fraction of the physical footprint of LWR technology – 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 data center, large industrial plant requiring heat and/or power, or for grid generation at points of congestion, generating clean firm electric power with high efficiency while reducing grid congestion.

Terrestrial Energy's IMSR Plant addresses the weaknesses and limitations of LWR technology with best-in-class Gen IV reactor technology

While Gen IV reactors are defined by international accord as having capabilities to outperform Gen III reactors (LWRs), MSRs have the potential to outperform in the Gen IV class from the unique *"triple operating advantage"* of high-temperature and low-pressure operation with high inherent safety.

Terrestrial Energy has captured this triple operating advantage to deliver the most capital efficient SMR in its sector and with its use of LEU the most deployable at scale.



Terrestrial Energy IMSR

Gen IV Molten Salt Reactor (MSR)

- ✓ **Best-in-class SMR capital efficiency:**
 - ~585 °C operational temperature, delivers ~44% (net) thermal efficiency
 - Low-pressure operation easing design requirements, lowering manufacturing costs
 - High inherent safety
 - High power density captures best practices in modular design for fast construction and economic performance
- ✓ **Lower Supply Chain Risk:**
 - Uses Standard fuel – LEU (<5% enrichment)
 - Fuel widely available, no exotic fuel suppliers and bottlenecks to fleet scale, no single point of failure in the supply chain
- ✓ **Favorable Regulatory Positioning:**
 - Full review by CNSC, a first for a Gen IV SMR
 - Two NRC topical reports approved



Gen IV High Temperature Gas Reactor (HTGR)

- ✗ **Lower capital efficiency due to:**
 - Expensive high-pressure helium cooling systems with inefficient heat transfer limits thermal efficiency to <40% (net)
 - Large pressure vessels and oversized containment systems limits use of modularity in design
 - Comparatively low power-density results in larger reactor components and poor modularity capabilities
- ✗ **Constrained Supply Chain:**
 - Requires TRISO with HALEU (15-20% enrichment)
 - Nascent supply chain. Limited qualified vendors. Constrained production capacity
- ✗ **No previous licensing for HTGR:**
 - Mixed commercial Opex



Gen IV Sodium Fast Reactor (SFR)

- ✗ **Lower capital efficiency due to:**
 - Low pressure but lower temperature operation reduces efficiency to <40% (net)
 - Complexities of safe fast reactor operation and management of 1000's of tonnes of hot liquid sodium drive costs
 - Comparatively low power-density results in larger reactor components and poor modularity capabilities
- ✗ **Constrained Supply Chain:**
 - Requires HALEU (15-20% enrichment) fuel at commercial scale, subject to material bottlenecks and geopolitical risk
- ✗ **Mixed regulatory history:**
 - Mixed safety and commercial Opex

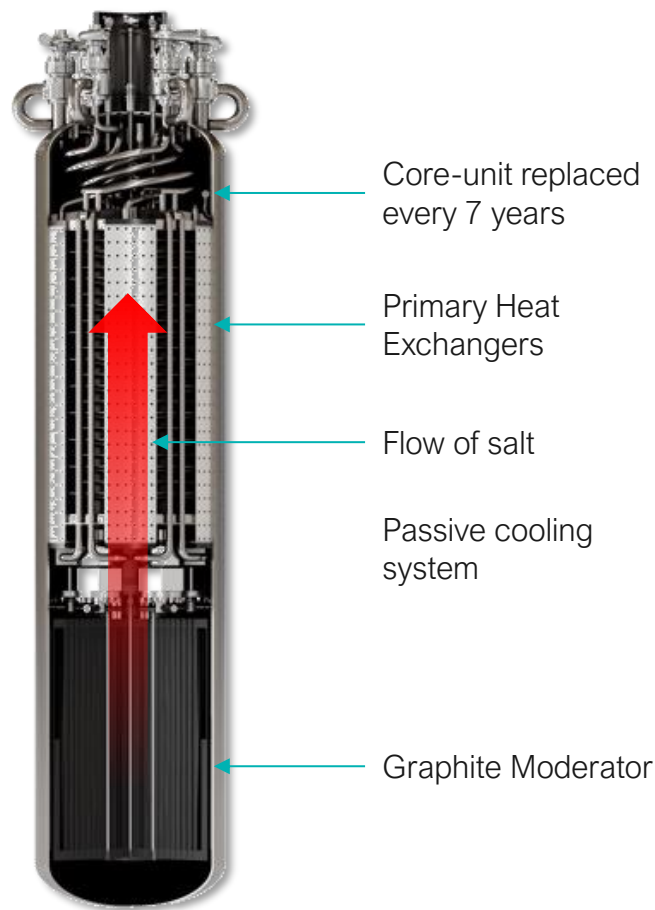
IMSR plant's technology and design choices drive large economic advantages

- ✓ 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 early commercial operation and use as back-up during nuclear systems' operation
- ✓ The IMSR Plant at **390 MWe is ideally suited** for data centers, industrial applications, and grid applications, including replacing fossil plants
- ✓ The IMSR Plant is a modular design for factory-built components and 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**



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

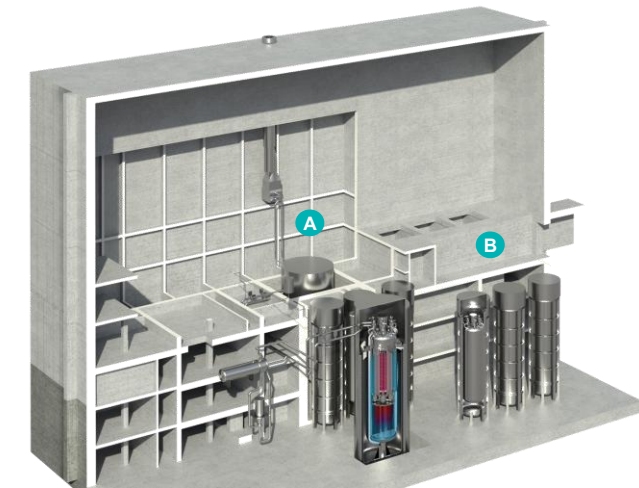
- ✓ This “integral” design captures commercial value through:

- 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

IMSR is a molten salt reactor that uses:

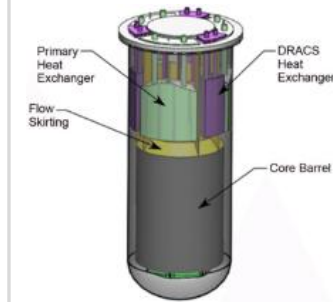
- ✓ Fluoride salt chemistry
- ✓ SALEU-fueled once-through fuel cycle
- ✓ Thermal spectrum
- ✓ Graphite moderator
- ✓ Integral reactor core architecture



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 cooling⁴
- Key innovation: Cartridge core design

CONCEPTUAL DESIGN CHARACTERISTICS OF A DENATURED
MOLTEN-SALT REACTOR WITH ONCE-THROUGH FUELING

J. W. Engel W. W. Grimes
H. F. Bauman H. E. McCoy
J. F. Dierling W. A. Khawaja

Date Published: July 1980

NOTICE: This document contains information of a preliminary nature,
it is subject to revision or correction and therefore does not represent a
final report.

Prepared by the
OAK RIDGE NATIONAL LABORATORY
Oak Ridge, Tennessee 37830
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

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>.

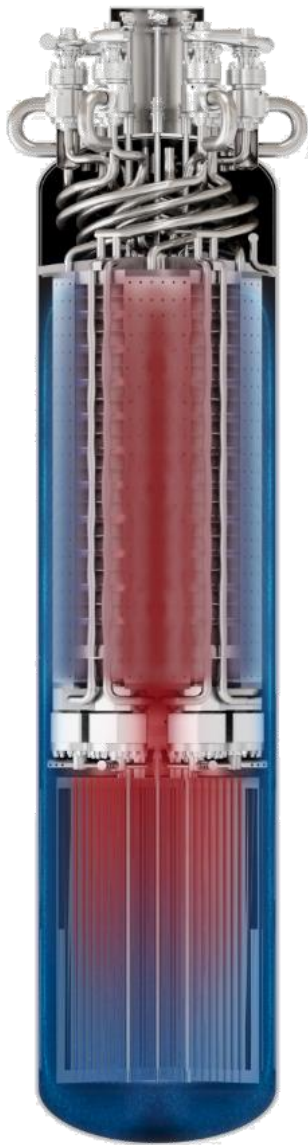
3. Engel et al. "Conceptual Design Characteristics of a Denatured Molten-Salt Reactor with Once-Through Fueling." ORNL, July 1980, <https://www.osti.gov/servlets/purl/5352526>.

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 LWR 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 LWR technology (based on water, pumps, actuators, etc.) and is foundational to the compelling economic and use-case advantages of the IMSR Plant



	IMSR Plant	LWR 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>.

Business Model

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

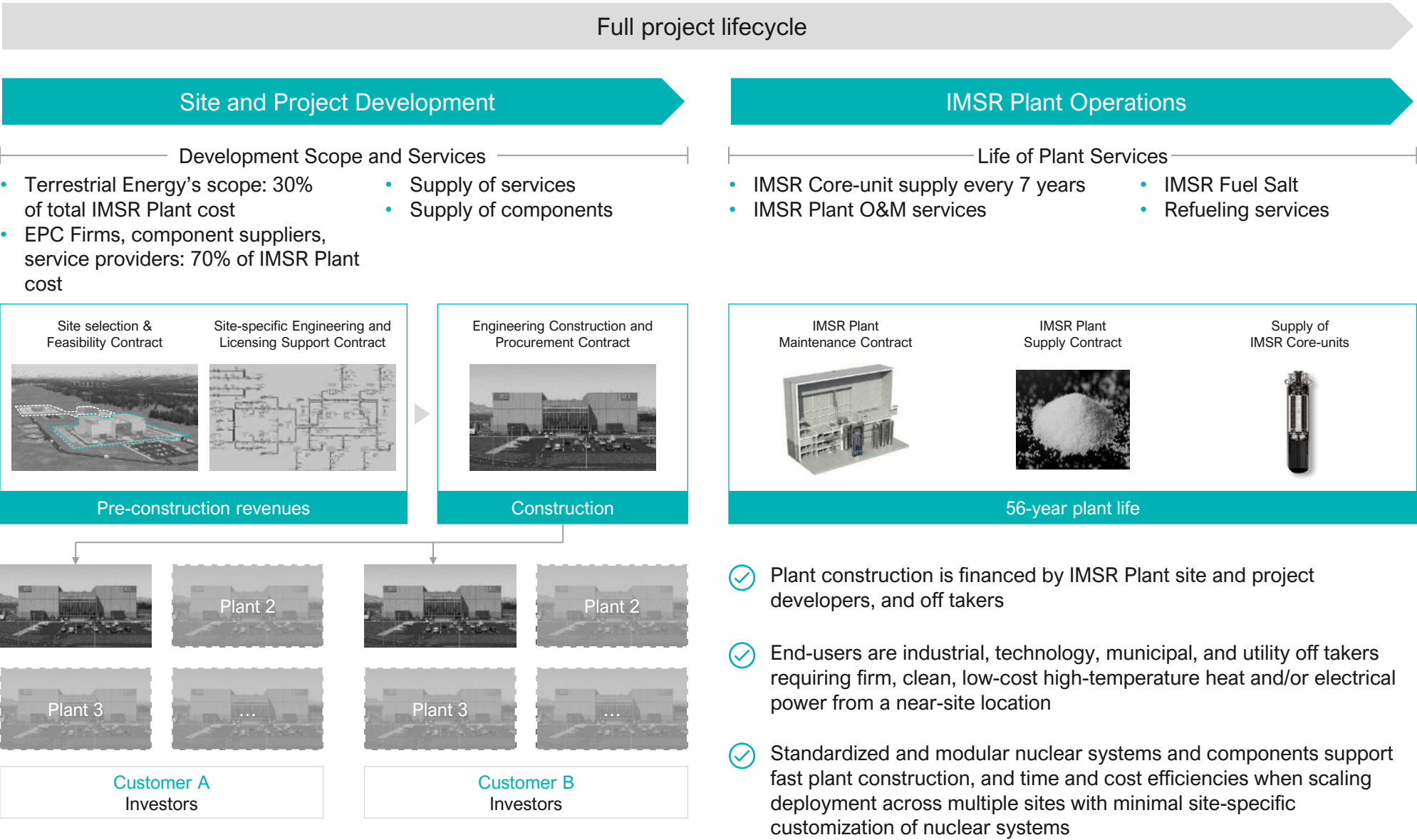
Terrestrial Energy's business is to:

● Supply engineering services for construction and operation of IMSR Plants

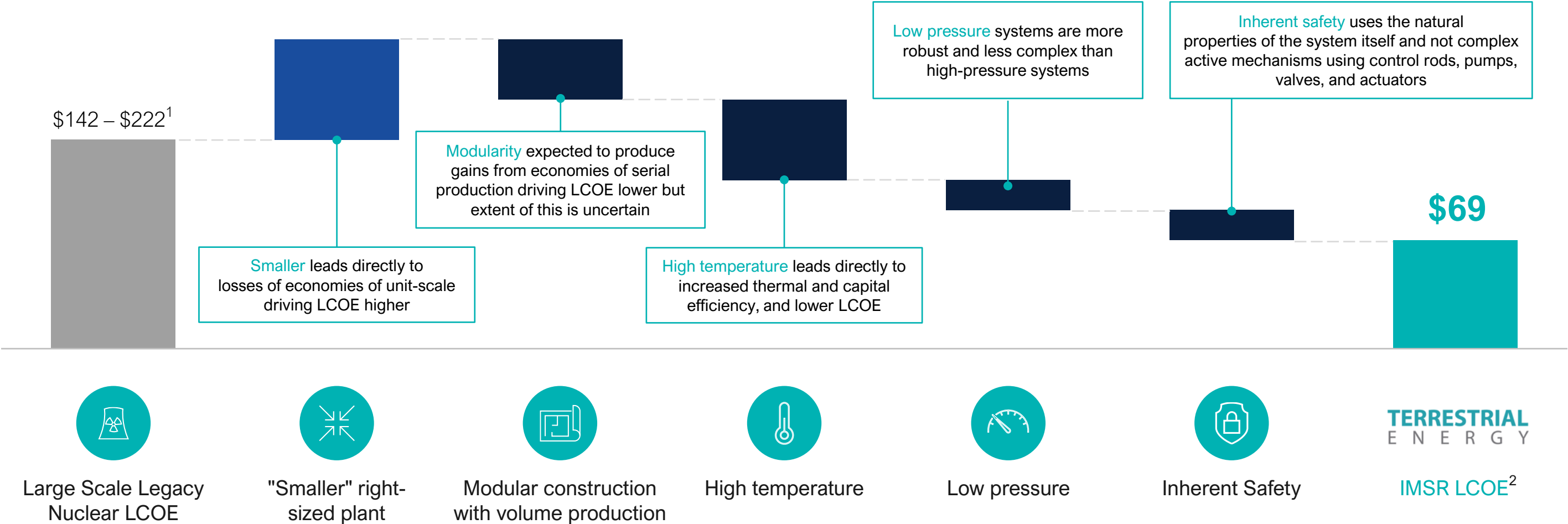
● Supply key nuclear components and fuel for construction and operation of IMSR Plants

● 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



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 uses readily available and inexpensive low-enriched uranium (LEU) in its fuel

Low-Enriched Uranium LEU ¹		High-Assay Low-Enriched Uranium HALEU (15-20%)
<5% U-235	Uranium-235 enrichment level	15-20% U-235
\$2,700 / kgU ²	Cost	\$32,600 / kgU ²
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 ³ will require years to establish at high cost.

1. Also referred to as “SALEU” or standard assay low enriched uranium, which contains less than 5% U-235
2. 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>.
3. “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's triple advantage – high-temperature, low-pressure operation with high inherent safety – and using LEU to deliver best-in-class capital efficiency with speed to fleet scale

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 light water reactor nuclear power plants

\$8.6



Exceptional levelized cost of heat (LCOH) \$8.6 per MMBtu¹

\$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 low enriched uranium (LEU) in its fuel, readily available from North American and Western European sources

Contracts entered with leading group of suppliers for services and components

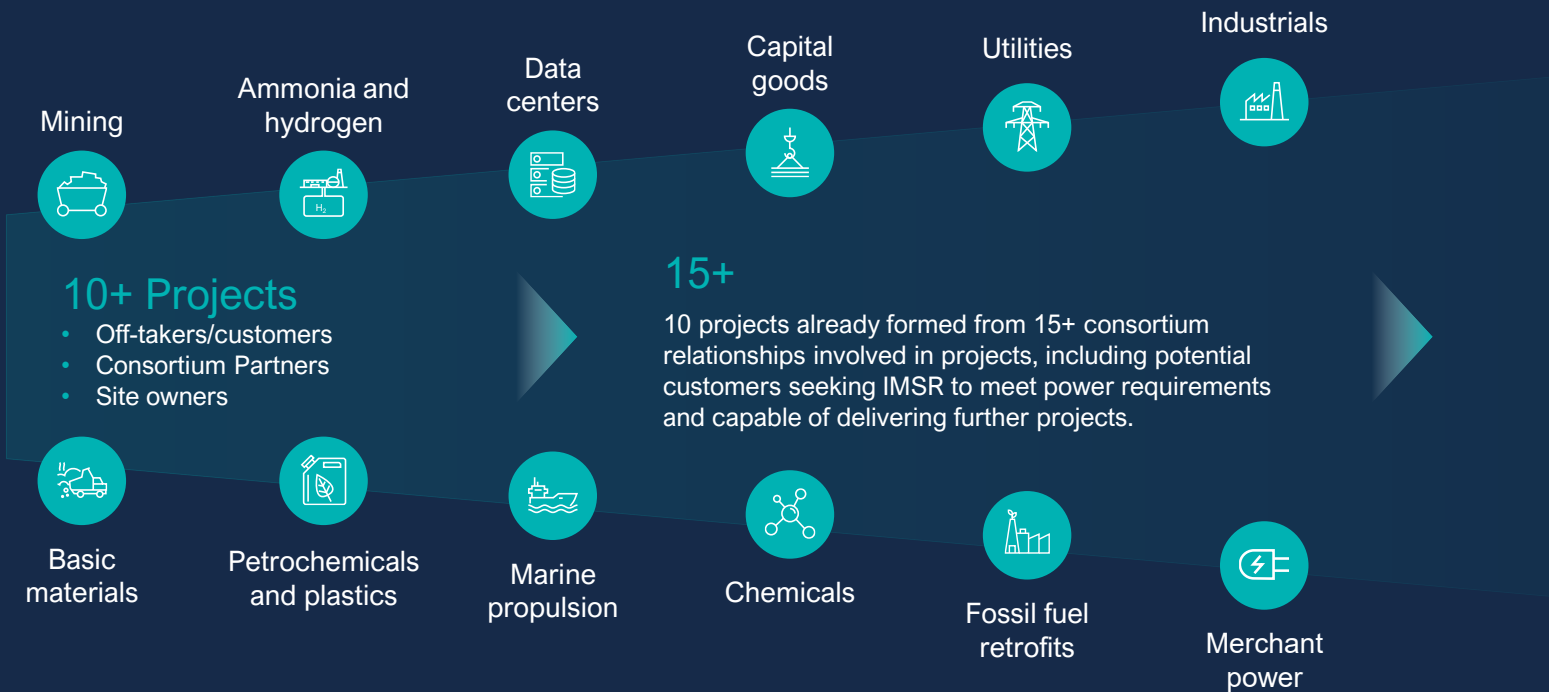
- ✓ Blue-chip service and major component suppliers support deployment readiness
- ✓ Awards to top-tier suppliers of engineering and operations services inspire nuclear market confidence
- ✓ Predominantly U.S. supply chain enables best use of local economic benefits and tax credits

Plant & Infrastructure	KSB L3HARRIS ptc SIEMENS energy BWXT BWXT Canada Ltd.
Nuclear fuel	orano Westinghouse ureenco Nuclear Stewardship Cameco
R&D and System Testing	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 AECOM 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



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



Tracking 2026 guidance. Catalysts and positioning for long-term growth

PILLARS



Engineering developments & regulatory approvals



Supply Chain developments and expansion



IMSR Plant project pipeline developments and expansion

2026 DRIVERS

- NRC approves Principal Design Criteria and Postulated Initiating Events methodology Topical Reports and issues Safety Evaluation Reports (SER)
- Submission of at least two further IMSR Topical Reports each further readiness of NRC operating license application
- Construction of DOE partnership TETRA pilot reactor

- Suppliers announced for TETRA & TEFLA, including for engineering and construction, and for component and fuel supply
- Graphite irradiation testing at NRG Petten advances for material qualification

- Riot Platforms MOU partnership established for best-in-class SMR and data center pairing incorporating use of NG supply bridge
- Details of 1 to 3 additional IMSR Plant projects to be announced in FY 2026 expanding indicative power capacity of project pipeline
- Land-use & R&D agreements announced with the Texas A&M System to secure site control of ~44 acres at RELLIS enabling completion of site characterization studies required for NRC Construction Permit application
- Engineering & project management office opened at RELLIS

EXPECTED FUTURE DRIVERS

- Construction and operation of DOE partnership TETRA pilot reactor
- Submission and approval of NRC Construction Permit for commercial IMSR Plant unlocks construction start and construction-phase revenues
- Testing data from NRG, TETRA and others, including testing at Texas A&M, advances readiness for NRC Operating License applications for commercial plant operation
- Readiness for NRC Operating License demonstrated through series of Topical Report submissions and NRC SER issuance.
- NRC Operating License approvals unlock commercial operation of IMSR Plants, operating-phase revenues, and a clear path to repeatable construction and licensing process for further plants and deployment at scale

- Construction and operation of DOE-partnership TEFLA fuel line pilot establishing blueprint for proprietary fuel production
- Sites and suppliers for IMSR Core-unit manufacturing and fuel production plants selected and construction commences supporting commercial operations of first IMSR plants

- Series of preliminary power off-take contracts and MOUs catalyze IMSR Plant project formation driving project development to pre-construction and construction phase revenues
- Milestone-rich IMSR Plant project development schedules repeatedly demonstrates supplier, construction and regulatory execution, as well as market-demand pull across data center, industrial heat, and coal-replacement SAM verticals
- Progress with initial IMSR plant projects from start of construction and operation become powerful catalysts for IMSR Project portfolio expansion to fleet scale deployment in 2030s with a path to a ~\$2.3T SAM in 2050

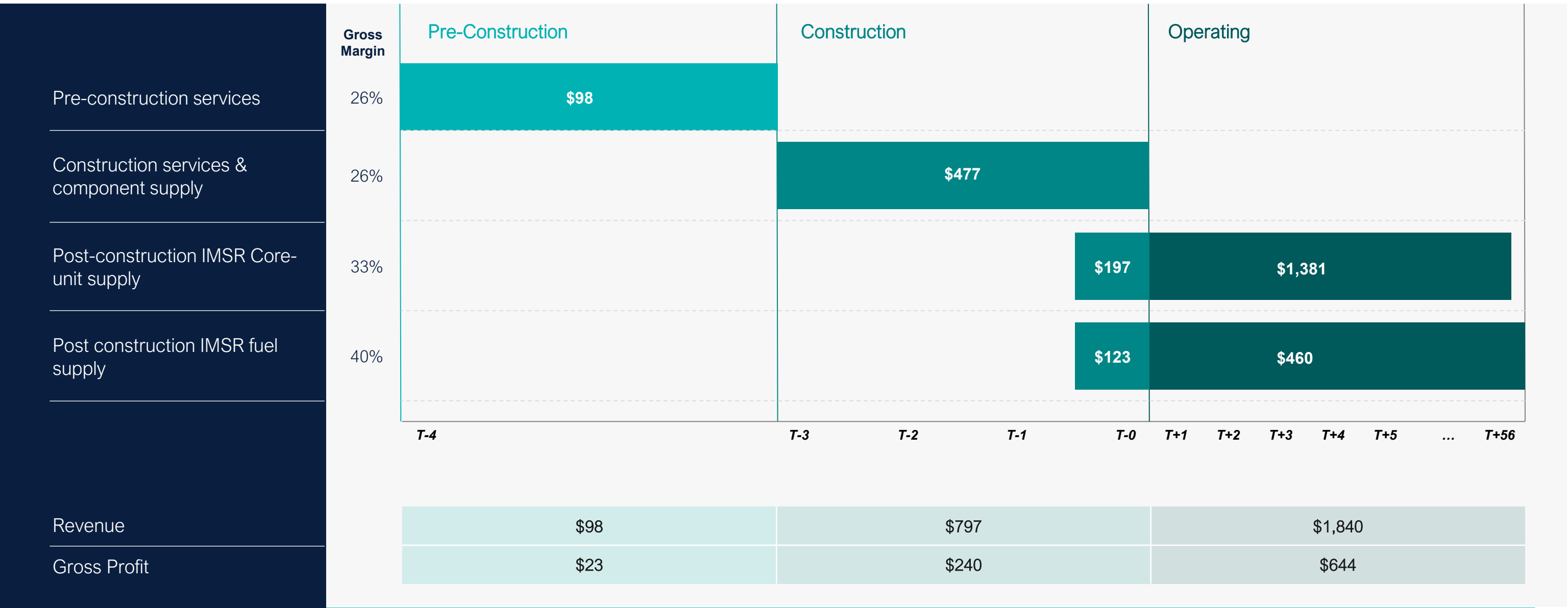


Terrestrial Energy's capital-light business model taps four revenue streams across the IMSR Plant's 50+ year lifecycle and starts before construction

Segment	Description	Cumulative revenue \$M	Gross Margin %	% of Revenue
Pre-construction services	Site selection, site and use-specific engineering studies for construction and licensing planning preparation	\$98	23%	4%
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	\$477	26%	17%
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)	\$1,578	33%	58%
Post construction IMSR fuel supply	Supply of IMSR Fuel Salt for the ongoing operation of an IMSR Plant	\$583	40%	21%
Cumulative Totals		~\$2.7B	33%	100%

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

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



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



Brian Thrasher, CPA

CFO

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



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



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



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



Frank Akstulewicz

Licensing Manager

- Over 40 years of experience 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



Tyler Gronbach

VP IR and PR

- More than 30 years of external affairs experience for publicly traded companies in technology and life sciences.
- Former VP External Affairs at Wolfspeed; VP Communications, Pharma Services at Thermo Fisher Scientific



TERRESTRIAL ENERGY



Compelling demand tailwinds

AI data center growth, grid reliability, and energy security are driving secular changes and unprecedented demand for clean firm power and SMR innovation



Most capital-efficient SMR

Proprietary Gen IV IMSR technology incorporating tested and demonstrated DOE molten salt technology, fueled with LEU for fast deployment at scale



\$2.3T SAM by 2050

Data center power, industrial heat, and coal replacement across OECD markets — with early-mover advantage in each vertical



Capital-light, high-margin revenue model beginning before construction

Speed-to-market in 2030s at fleet scale, with per-plant revenue beginning at site development and recurring across a 50+ year operating life



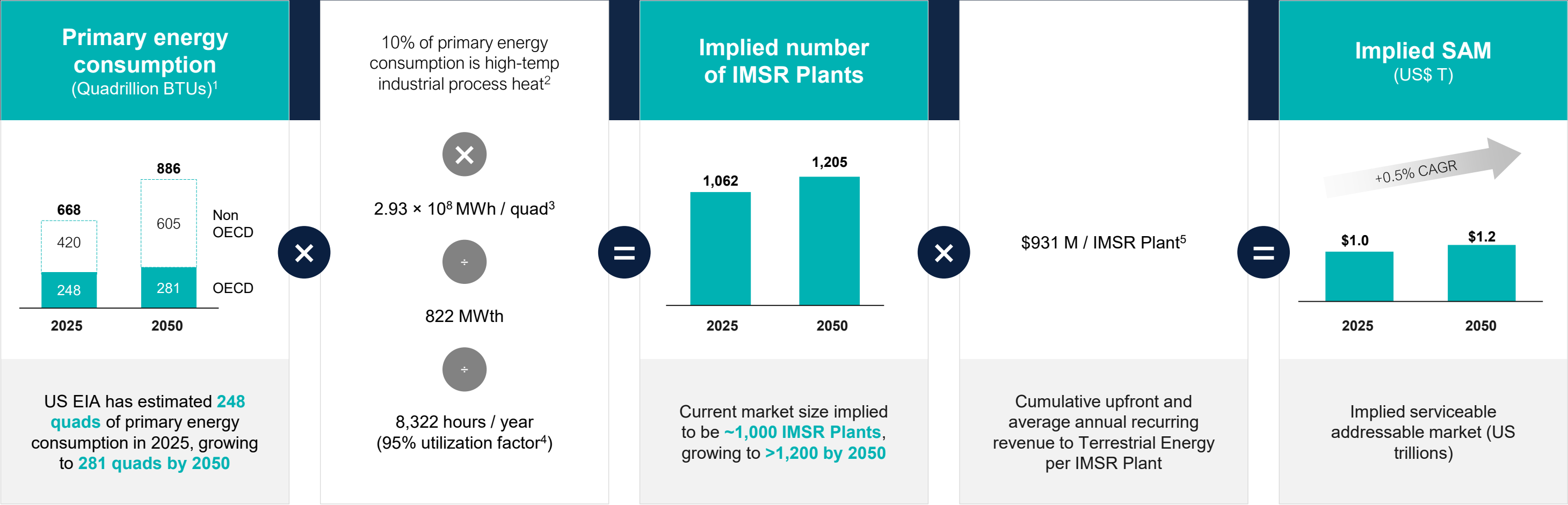
Plant, supplier and regulatory milestones

Track record of design, supply chain and regulatory developments delivering multiple consequential milestones

Glossary

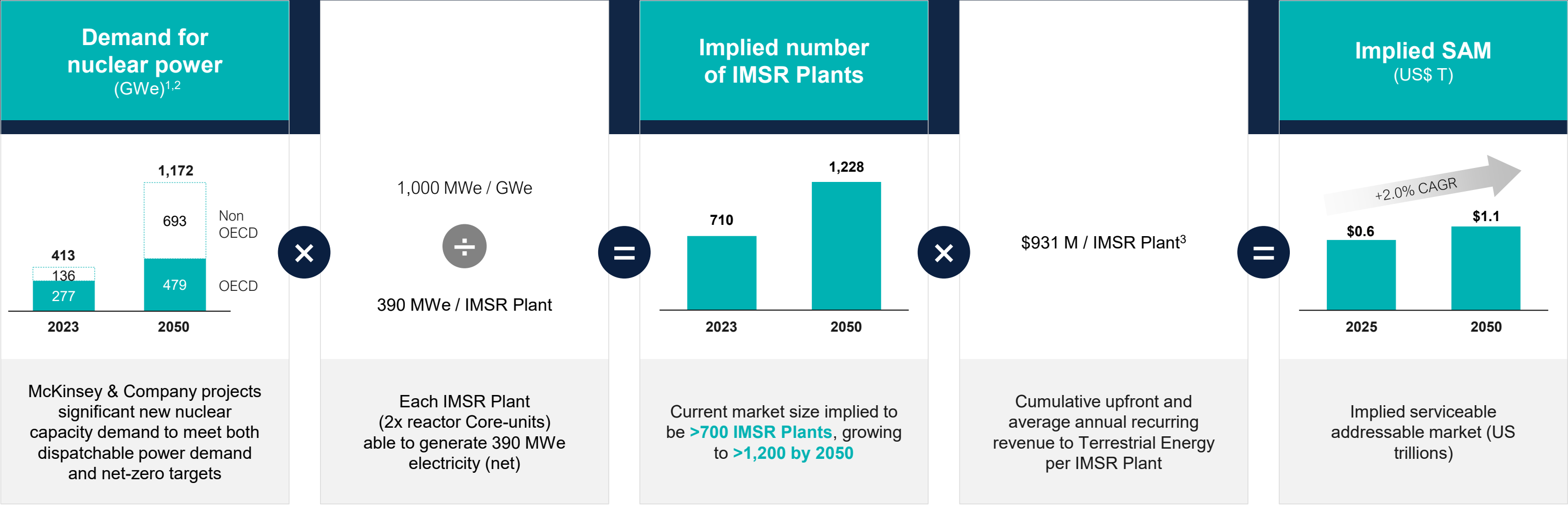
Term	Definition
Base load	The minimum amount of electric power delivered or required over a given time period at a steady rate.
Core-unit	The term to denote the vessel that contains the primary components of the IMSR, the reactor core, heat exchangers, pumps, etc.
DOE and LPO	The United States Department 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)
LEU aka SALEU	LEU stands for “Low Enriched Uranium,” it is also referred to as “SALEU” or 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 phenomena 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.
LWR aka 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.

High-temperature, High-quality Industrial Process Heat in OECD is a Primary Market



1. US EIA, International Energy Outlook, World total primary energy consumption by region (reference case)
2. German Energy Agency (dena), Powerfuels in Industry: Process Heat (20% of all heat being industrial process heat) multiplied IEA, Industrial heat demand by temperature range (50% of industrial process heat being up to 400 °C, an underestimate as IMSR can supply up to 585 °C)
3. Conversion factor, i.e. mathematical constant
4. Assumption of uptime, i.e. operating time less maintenance and other downtime events, calculated as 24 hours/day × 365 days/year × 95% utilization factor
5. Cost of constructing and operating the IMSR Plant are the same regardless of whether the end customer elects to use it for heat or electricity

Global Nuclear Electricity Generation in OECD Markets Represents a Large Additional Primary Market



1. McKinsey & Company, [What will it take for nuclear power to meet the climate challenge?](#)
2. US EIA, calculated share of nuclear electricity installed generating capacity [OECD](#) and [World](#)
3. Cost of constructing and operating the IMSR Plant are the same regardless of whether the end customer elects to use it for heat or electricity