TERRESTRIAL ENERGY

Delivering carbon-free thermal and electrical energy

Connection Nuclear through Innovation

JUNE, 2026

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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

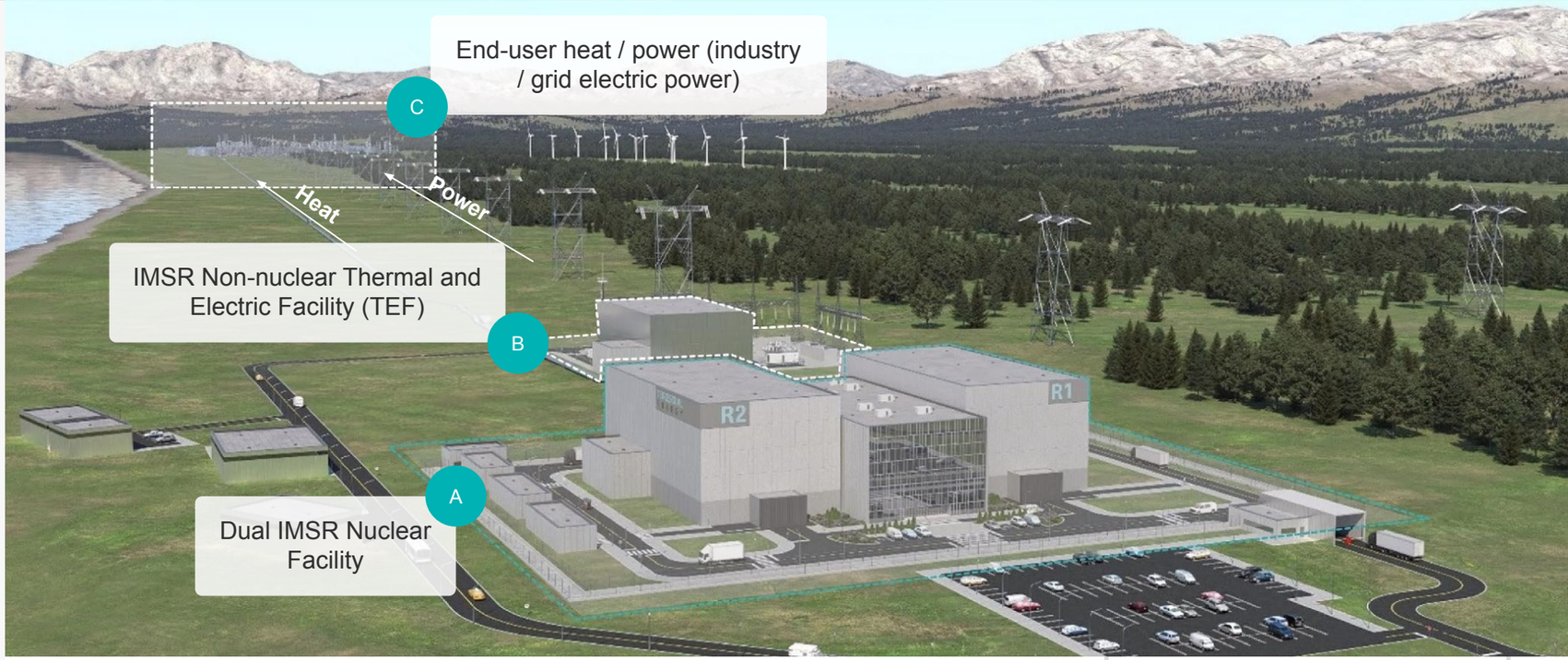
Corporate history built with an experienced management team with many decades of experience

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

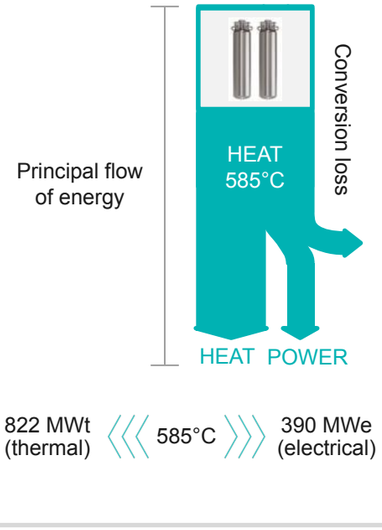


A **Standardized twin IMSR Nuclear Facility**
- Subject to nuclear regulation
- Standardized, simplified design reduces costs
- 822 MW (net) thermal energy production for 585°C supply

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

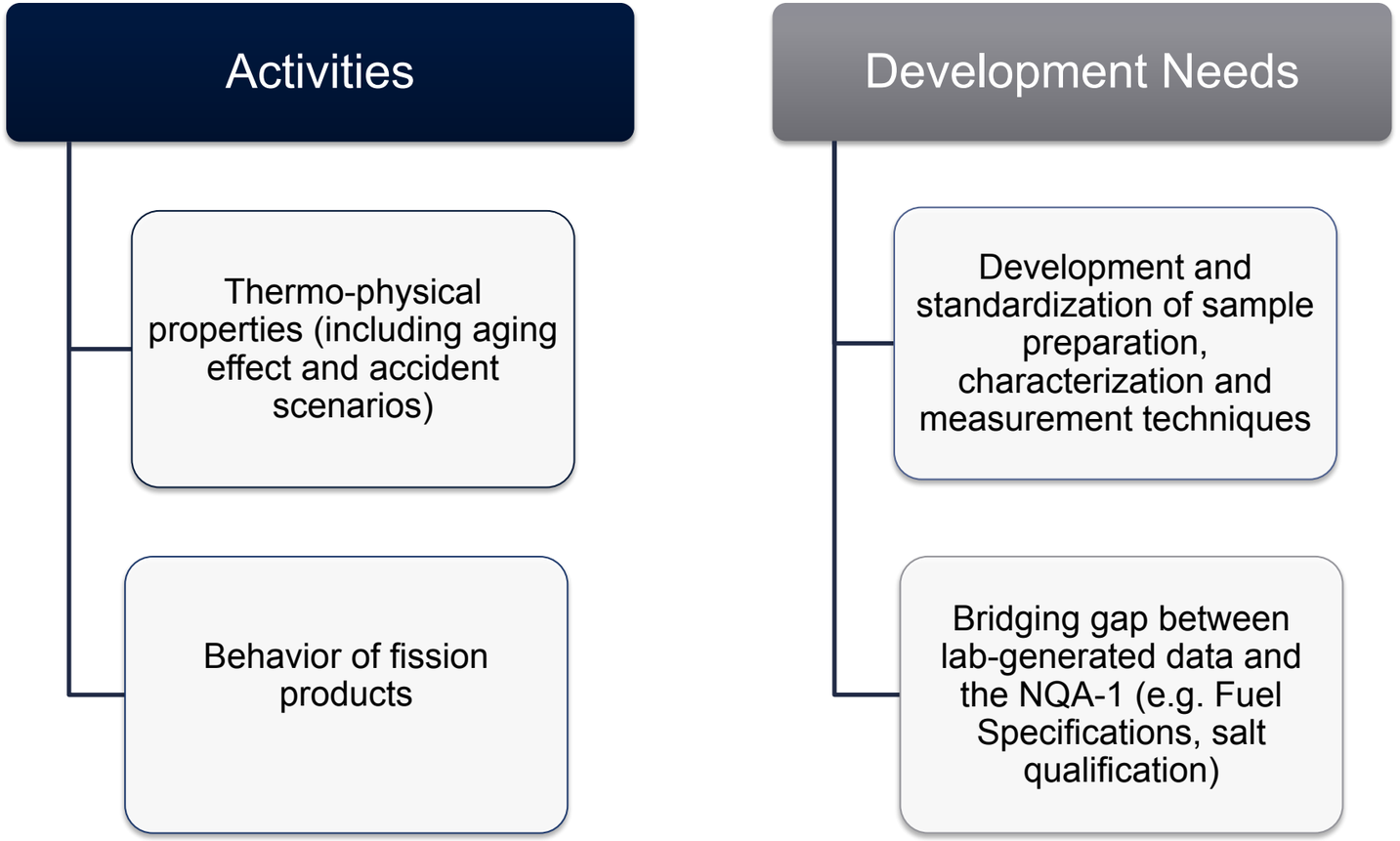
Salt Qualification

Material

- ✔ Fluoride salts

QA Requirements

- ✔ NQA-1
- ✔ ISO 9001



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

TERRESTRIAL
ENERGY

Making transformative nuclear energy a commercial reality

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