TERRESTRIAL ENERGY

Leading the way to a bright energy future

Terrestrial Energy: a leader in bringing advanced reactors to market

Terrestrial Energy is an energy technology company developing a clean alternative to fossil fuel combustion using advanced reactor technology that produces heat and electric power. It is an early leader in an emerging sector. Established in 2013, Terrestrial Energy's strong leadership, advisors and partners are pursuing a $30 trillion opportunity to provide clean energy to global markets that is low-cost, versatile and high impact.

> "The next energy miracle is nuclear energy."
> – Bill Gates

Terrestrial Energy's Integral Molten Salt Reactor, the IMSR®, is clean energy technology, and it is transformative. It harnesses nuclear energy, but not in the same way as today's commercial reactors. The company's engineering and regulatory and business developments have moved the IMSR® power plant design into a leading market position. As a result of its transformative commercial potential, IMSR® deployment is supported by governments and industry. Terrestrial Energy is on track to secure its first industrial customers in North America in the early 2020s, with its first plants operating in the late 2020s.

How heat and power from advanced reactors will play a key role in our clean energy future

Many countries aim to reduce emissions to net-zero by 2050, with many also predicting this is impossible without nuclear energy. Experts also agree that nuclear energy must play a critical role in our clean and prosperous energy future, but current technology is insufficient to meet that promise. Advanced reactors represent a step change in innovation, and Terrestrial Energy's IMSR® is leading the way.

2030

- *Licensing and construction of first commercial IMSR® power plants*
- *Selection of first IMSR® power plant site with first customer*
- *Completion of CNSC second design review*

2020

- IMSR® selected by OPG as 1 of 3 preferred SMRs for deployment at Darlington site
- $20 million investment from Canadian federal government
- Former Prime Minister of Canada, Rt. Hon. Stephen Harper, joins Advisory Board
- IMSR® selected by USNRC and CNSC for first joint reactor review
- Start VDR Phase 2 for IMSR® power plant design. Former U.S. Secretary of Energy, Dr. Ernest Moniz joins Advisory Board

2016

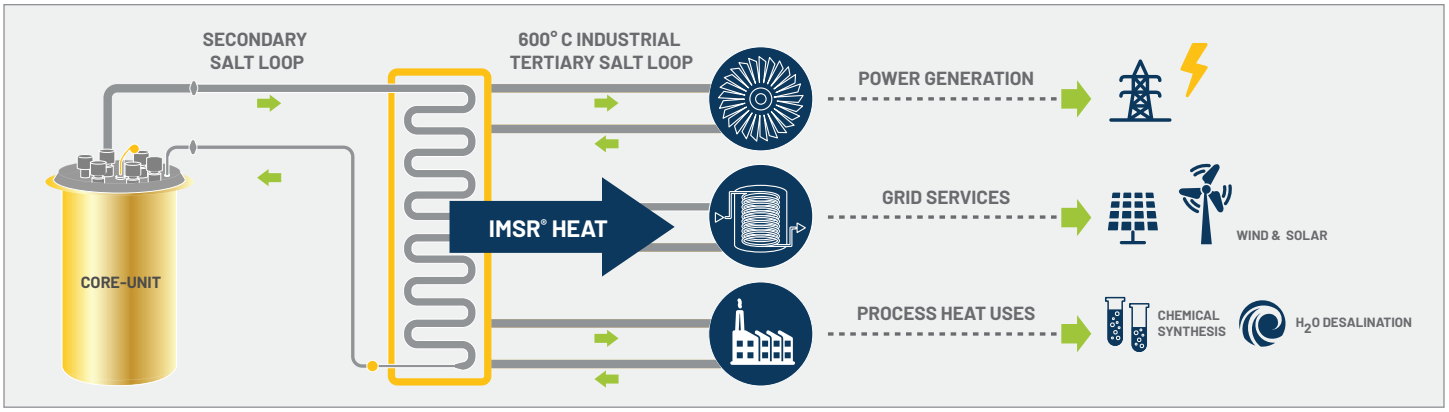
- Successful completion of CNSC's VDR Phase 1 for IMSR® power plant design, a nuclear industry first

2014

- Engaged with the Canadian Nuclear Safety Commission (CNSC); awarded cleantech grant from SDTC, an agency of the Canadian government

2012

- Incorporated



Terrestrial Energy's IMSR®: low-cost, clean, versatile and high impact

Terrestrial Energy's IMSR® uses a liquid molten-salt fuel in an innovative power plant design to deliver low-cost, emission-free energy because of its high-temperature, low-pressure and "walk-away"-safe operation. This high-temperature operation generates electricity at superior thermal efficiency and heat for direct industrial application. Consequently the IMSR® is a cost-competitive energy alternative to fossil fuel combustion and a powerful tool for policymakers to achieve deep decarbonization.

- **Cost-Competitive:** IMSR® power plants are small (195 MWe/442 MWth) and modular. They represent financeable infrastructure projects as they require much smaller upfront investment (less than $1 billion) and are constructible in under five years.
- **Clean:** Like all nuclear power plants, the IMSR® produces no greenhouse gases. A small land-use footprint and a low-water requirement minimize environmental impacts and increase siting flexibility.
- **Produces Heat:** IMSR® power plants are versatile. They supply 600°C heat in the form of a hot molten salt — ideal for large-scale and efficient electric power generation and for energy-intensive processes such as desalination, hydrogen production, petrochemical refining and clean synthetic transport fuels; these are applications not serviced by current clean-energy technologies. These capabilities of IMSR® power plants uniquely enable them to drive deep decarbonization in the industrial sector.
- **Dispatchable:** IMSR® power plants are the clean energy partner to variable renewables, such as wind and solar, as they can rapidly load-follow, and so remove the need for utility-scale grid storage.
- **Innovation:** The IMSR® molten-salt fueled power plant design blends proven molten-salt technology with innovative enhancements — the key being the integration of primary reactor components into a sealed, replaceable vessel. This enables simple and robust safety systems for a "walk away"-safe nuclear power plant.

Why Terrestrial Energy is the company to watch

Terrestrial Energy's IMSR® power plant design has completed Canada's phase one design review, a first for an advanced reactor. It is a clear leader among advanced reactor developers, and its IMSR® power plant design has many advantages even compared to other next-generation reactors. Terrestrial Energy benefits from engineers and advisors from some of the world's leading nuclear energy companies, and its executives have decades of world-class experience. Its technology is on schedule for 2020s commercialization and deployment. It has the potential to transform global energy supply.

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