

TERRESTRIAL ENERGY

“High impact, transformative, green energy”

February 2017

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PRESENTATION TO THE ADVANCED REACTORS TECHNICAL SUMMIT IV FEBRUARY 8-9 2017

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INTEGRAL MOLTEN
SALT REACTOR

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THE ENERGY OF THE FUTURE

Cost-competitive, secure, clean energy is fundamental to economic prosperity and social progress

Over the next 30 years **the world's largest and most capital intensive market will be fundamentally re-ordered** around cost-competitive, secure, clean energy production

Wind and Solar Energy developments, while impressive, are not enough, and **large gaps remain that cannot be filled**

The current narrative on clean energy innovation is overly focused on electricity production and neglects much of the problem

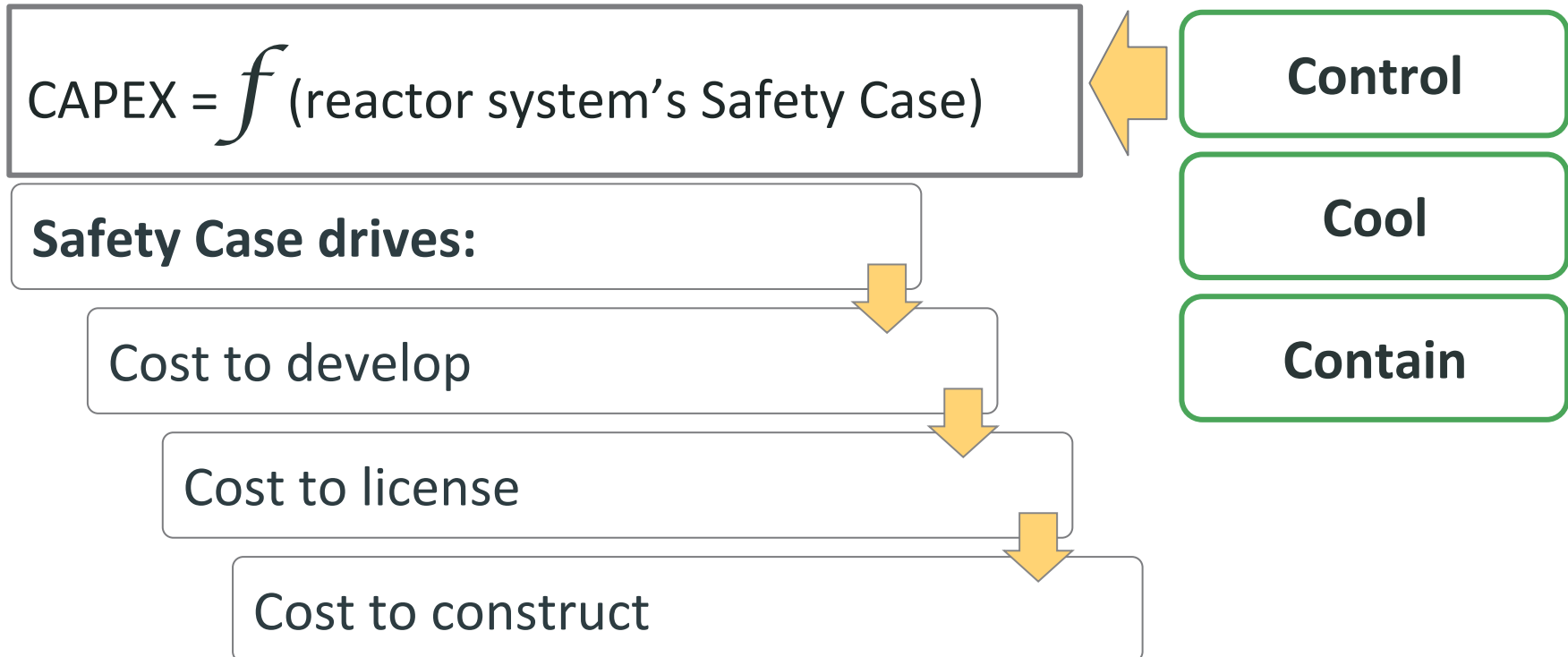
A clean dispatchable high-grade heat source for industry is missing

We have a clean dispatchable high grade heat source of immense scale that is uniquely capable of making a large contribution to this and to electric power markets

Different fission technology choices can transform nuclear power and transform energy markets

We have made different choices based on today's market needs, a willingness to challenge current thinking and believe we can transform energy markets

WHY DO TECHNOLOGY CHOICES MATTER? A FUNDAMENTAL RELATIONSHIP

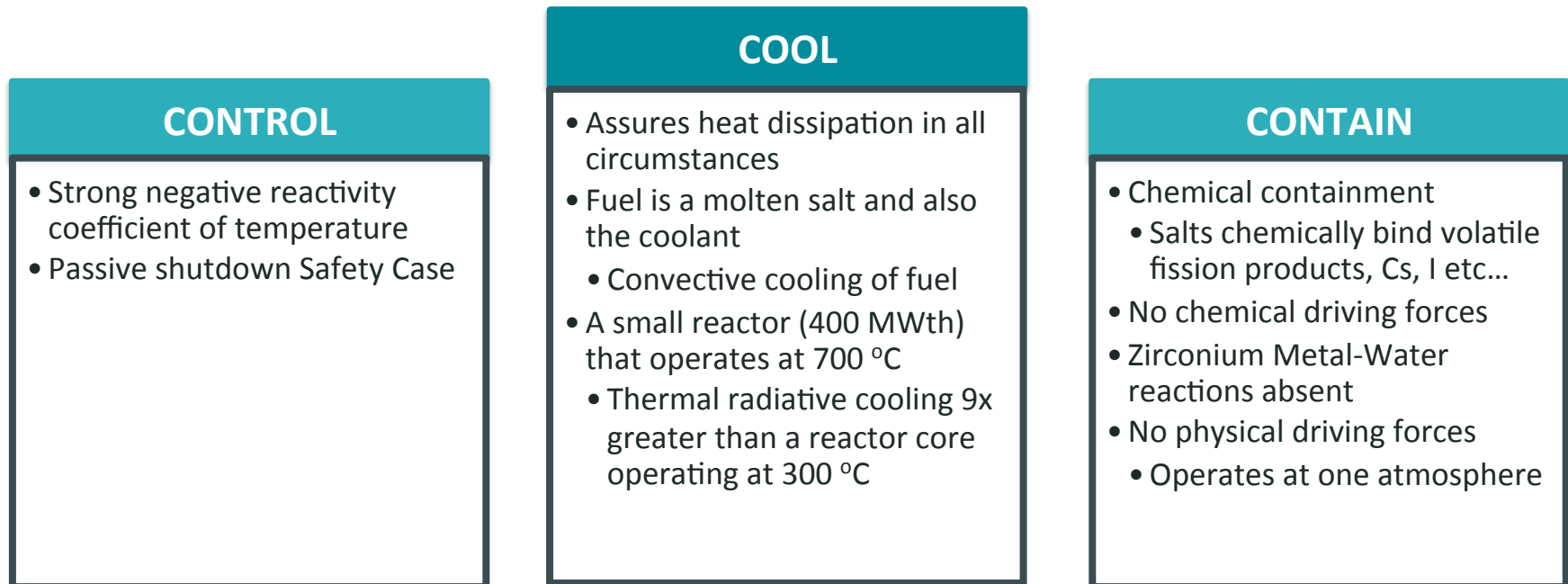


- A reactor's Safety Case is technology specific
- Technology choices impact CAPEX strongly

Technology choices drive CAPEX

THE VALUE OF MOLTEN SALTS – SAFETY CASE (IMSR™)

Central challenge is heat dissipation in all circumstances
Central pillar of Safety Case

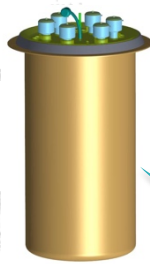


IMSR's Safety Case achieved with simple, natural and passive mechanisms that are secure and robust

IMSR has a Safety Case to drive cost innovation

THE INTEGRAL MOLTEN SALT REACTOR (“IMSR™”)

3.6 m x 8 m
(12 ft. by 26.7ft.)



Key innovation is the integration of primary reactor components

- Reactor core
- Primary heat exchanger
- Pumps

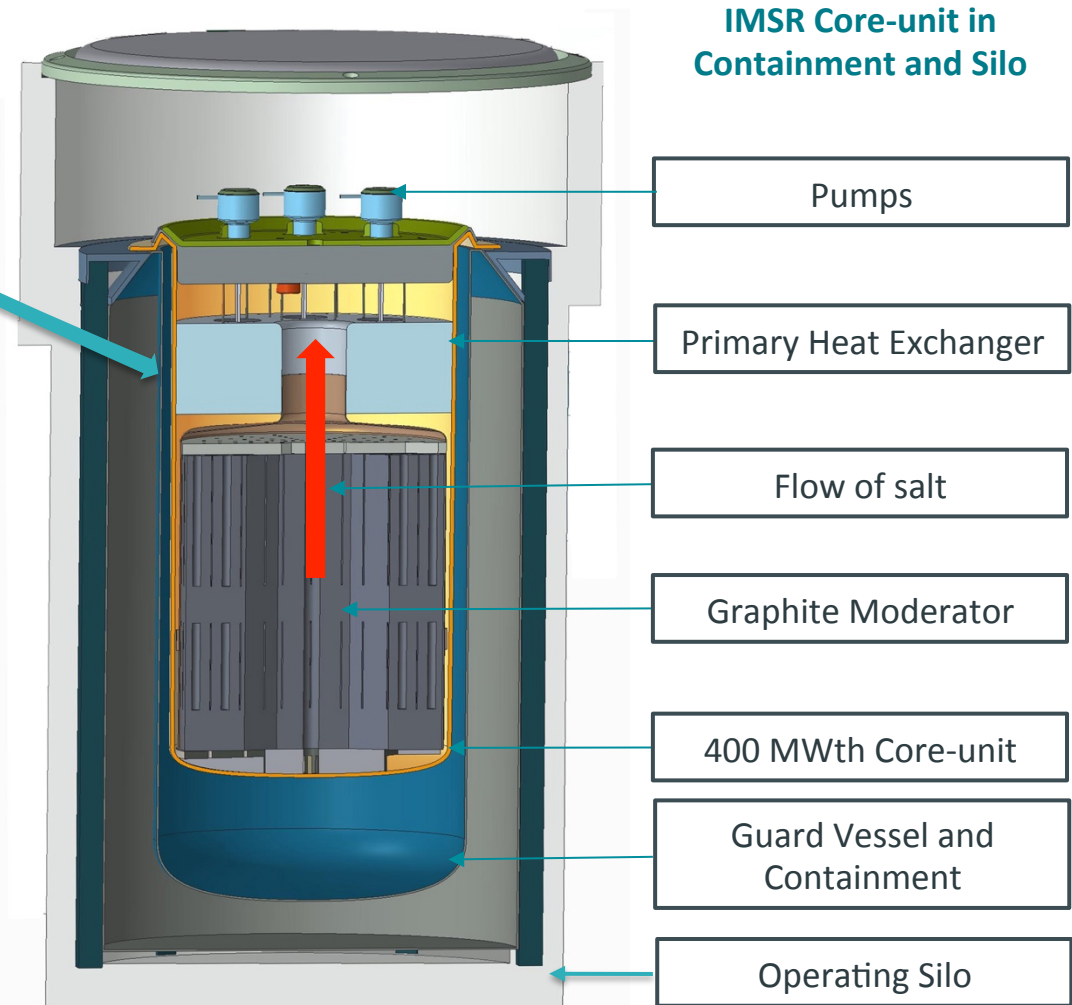
..into a sealed reactor vessel within a compact and replaceable unit

- For a 7-year operational life

This integral design promises high industrial value through

- Inherent safety
- Operational simplicity
- High capital recovery

Patent applications filed



OUR PRODUCT IS THE INTEGRAL MOLTEN SALT REACTOR (IMSR™)

We expect IMSR heat to be a competitive clean substitute for fossil fuel combustion

Cost competitive

- IMSR power plant LCOE of ~4 to 5 c/kWh. LCO-BTU 5 to 6 \$/MMBTU
- Power and heat that is cost competitive with fossil fuel combustion

Convenient delivery

- High-grade heat delivered to industry by common industrial salt

Clean

- No NO_x, SO_x or CO₂

Deployability

- First deployments in Canada and US in 2020s

Scalability

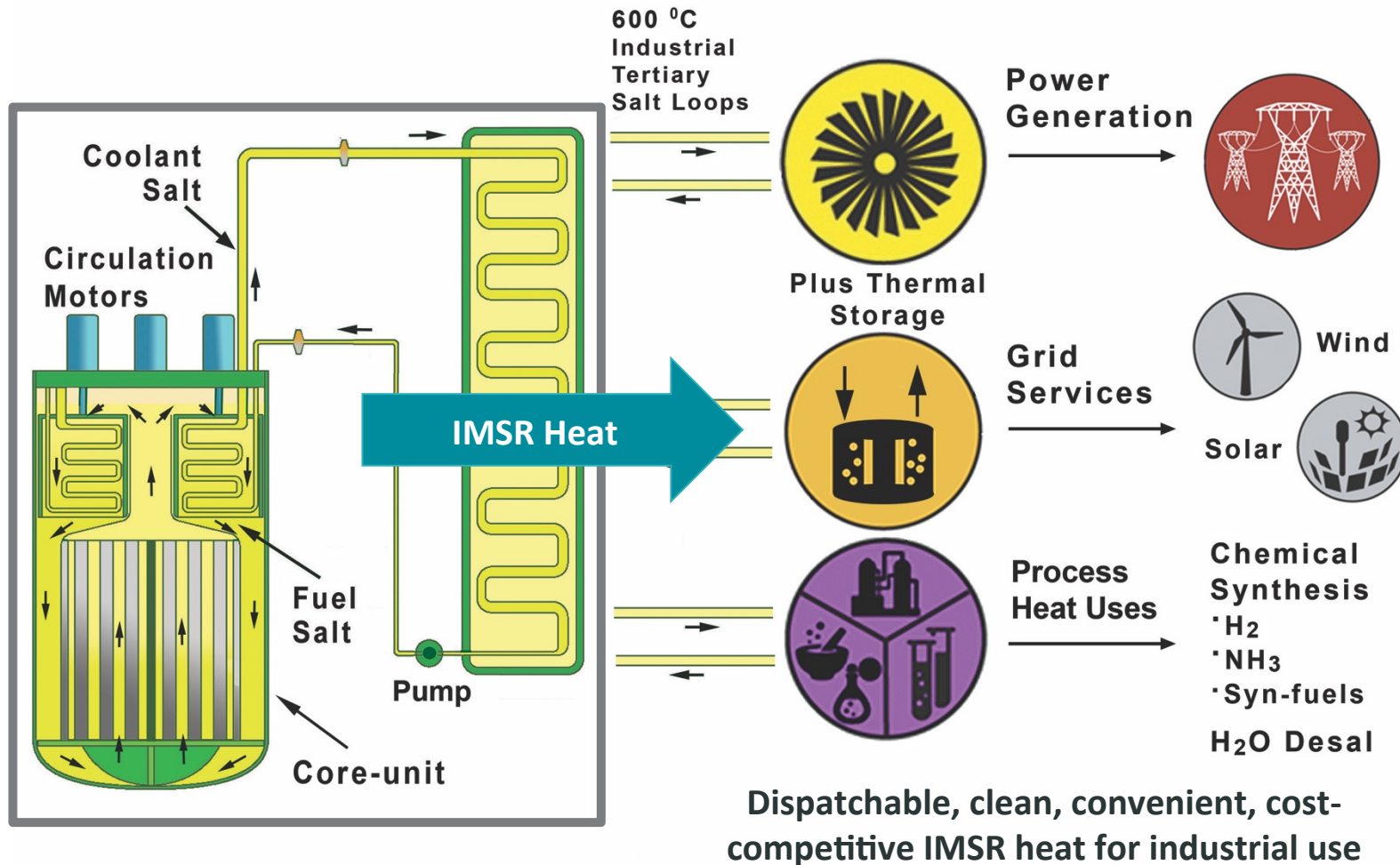
- Heat for industrial process heat and for electric power markets
- A Small Modular Reactor for factory production in support of rapid global deployment
- A Small Modular Reactor for lower project financing risks

Market position

- Sovereign involvement
- Industrial involvement
- Private capital involvement
- University and National Lab involvement
- Regulatory engagement

We are deploying our product at a time of escalating market and policy need for clean, scalable, and economical energy provision

IMSR IS FOR INDUSTRIAL HEAT USE AND NOT SIMPLY FOR ELECTRIC POWER PROVISION



IMSR™ heat has many industrial uses

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