National Aeronautics and
Space Administration

NASA Space Nuclear Capabilities Development

NASA Advisory Council (NAC)

Technology, Innovation, and Engineering (TI&E) Committee

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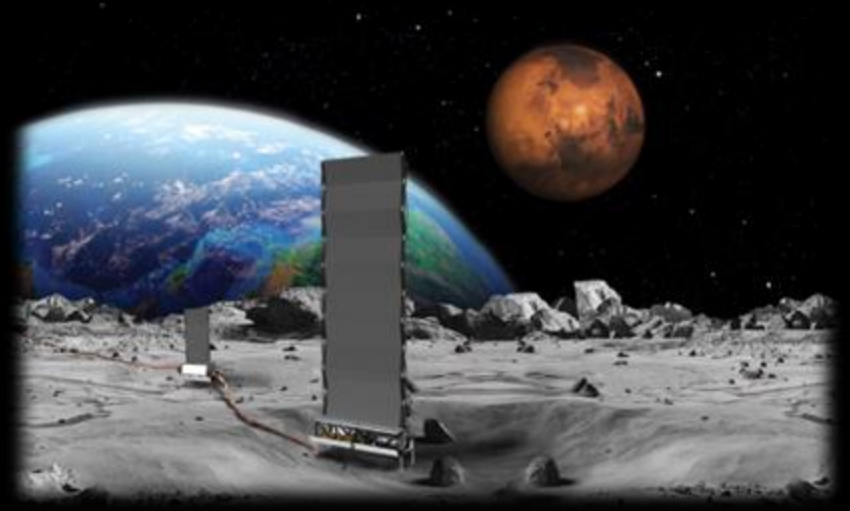
Space Nuclear Technology Manage

Fission Surface Power (FSP) Strategy

Autonomous, reliable energy source for human and science exploration

Benefits:

- ✓ Space Leadership
- ✓ Domestic Economy
- ✓ Green Energy
- ✓ National Posture
- ✓ Global Competitiveness

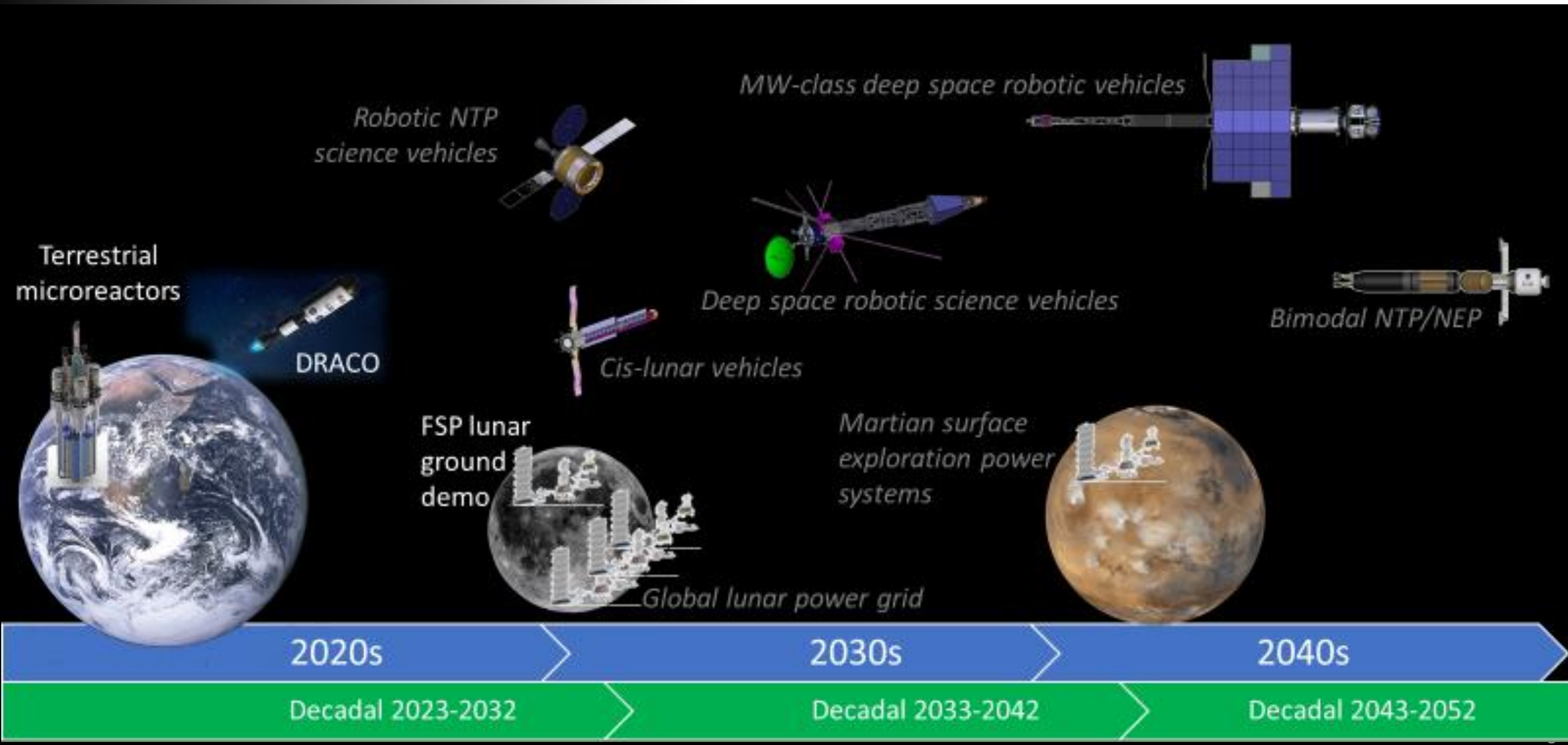


FSP System

Common with Terrestrial Microreactors

- NASA, DOE and DOD are collaborating on the development of a mobile, 10's kWe fission power system for both space and terrestrial application
- Development centers on using commercial grade enriched fuel and industry partnerships
- NASA design must show extensibility to Mars human missions, and higher power (MWe) for NEP and expansion of lunar infrastructure
- NASA plans to delver a flight-qualified demonstration system to the launch site by mid-2030's

Space Nuclear Propulsion Systems – Notional Roadmap



Interagency Space Nuclear Investments

Growing National Investment

DARPA-NASA DRACO Nuclear Thermal Propulsion flight demonstration mission

USSF Joint Emergent Technology Supplying On-orbit Nuclear Power

NASA Fission Surface Power Project Lunar Surface Demonstration

NASA-DOE-DOD VALKRE