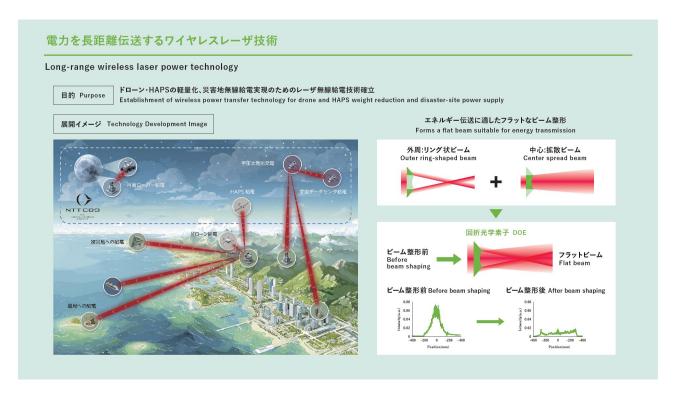




Supplying power remotely to drones, HAPS, and disaster sites Long-range wireless laser power technology

Background and Technical Challenges

Laser-based wireless power transmission over distances beyond 1 km is promising for drones, HAPS, and disaster-site power supply, but practical use demands higher efficiency and stability.



R&D Goals and Outcomes

We will establish laser-based technology for remotely supplying power to drones, HAPS, and disaster sites, with future applications on the Moon and space solar power systems.

Key Technologies

01 Core Technologies

A unique beam-shaping technology that optimally controls beam profile and phase to uniformly irradiate a receiver panel 1 km away.

02 Key Differentiators

This technology uses lasers for wireless power transfer, achieving high-efficiency, long-distance transmission beyond conventional methods by optimizing the beam profile with custom diffractive optical elements.

Business

Technology Schedule FY27-29 Commercialization Schedule FY30

[Exhibitors]

NTT Space Environment and Energy Laboratories

(Contact)

Space Environment and Energy Laboratories Planning Department

[Co-exhibitors]

Mitsubishi Heavy Industries, Ltd.

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