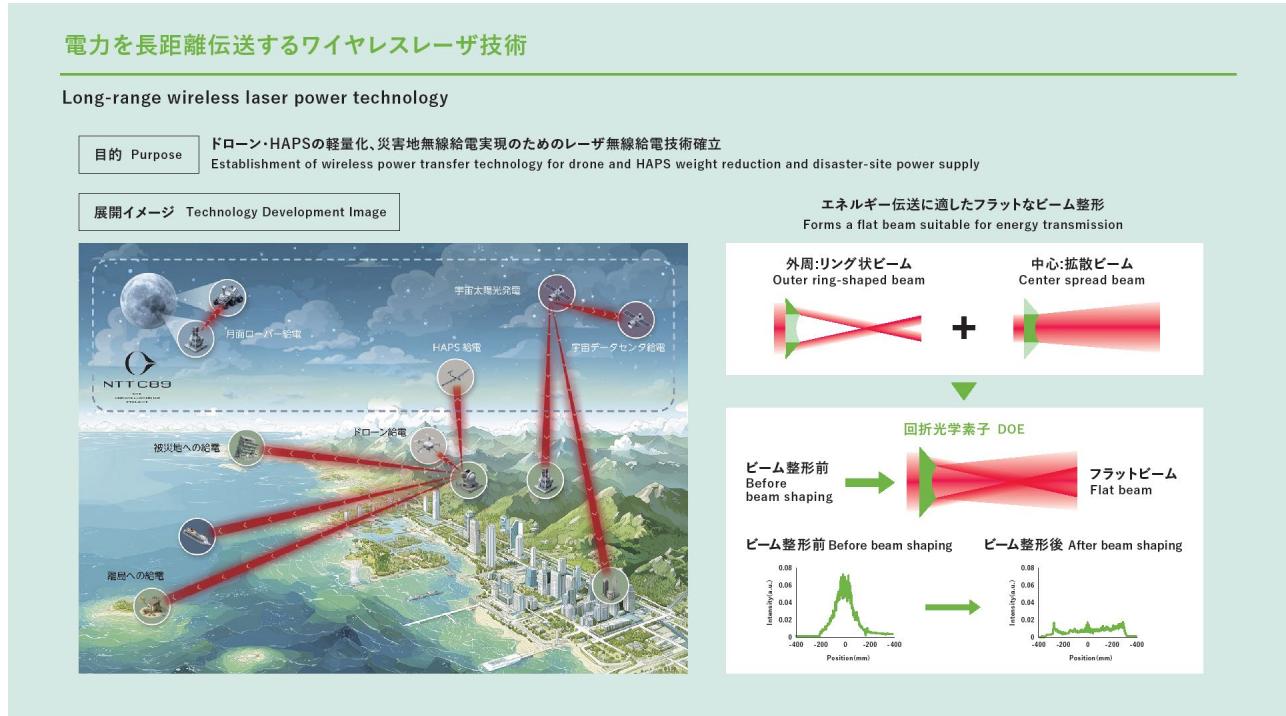




# Supplying power remotely to drones, HAPS, and disaster sites Long-range wireless laser power technology

## 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.

Use Cases Energy

R&D phase Business

Technology Schedule FY27-29

Commercialization Schedule FY30

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NTT Space Environment and Energy Laboratories

**[Co-exhibitors]**  
Mitsubishi Heavy Industries, Ltd.

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Space Environment and Energy Laboratories Planning Department

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