Fujikura Ltd.
September 30, 2026

Fujikura Receives Largest-Ever Single Order for High-Temperature Superconducting (HTS) Tape from CFS to Accelerate Development of ARC Power Plants

Fujikura Ltd. (Director, President and CEO: Naoki Okada; hereinafter "Fujikura") today announced that it has entered into a landmark long-term supply agreement with Commonwealth Fusion Systems (hereinafter "CFS"), a global leader in fusion energy, for high-temperature superconducting (HTS) tape*1 as part of efforts to accelerate the commercial rollout of ARC fusion power plants.

- **As part of the long-term supply agreement, Fujikura is investing in the expansion of its manufacturing capacity to provide more than 10,000 km (3 GA-m) of High Temperature Superconducting (HTS) tape to support the commercial rollout of CFS' ARC power plants.**
- **The agreement is the largest of its kind for HTS tape, a key milestone for the ARC power plant supply chain.**

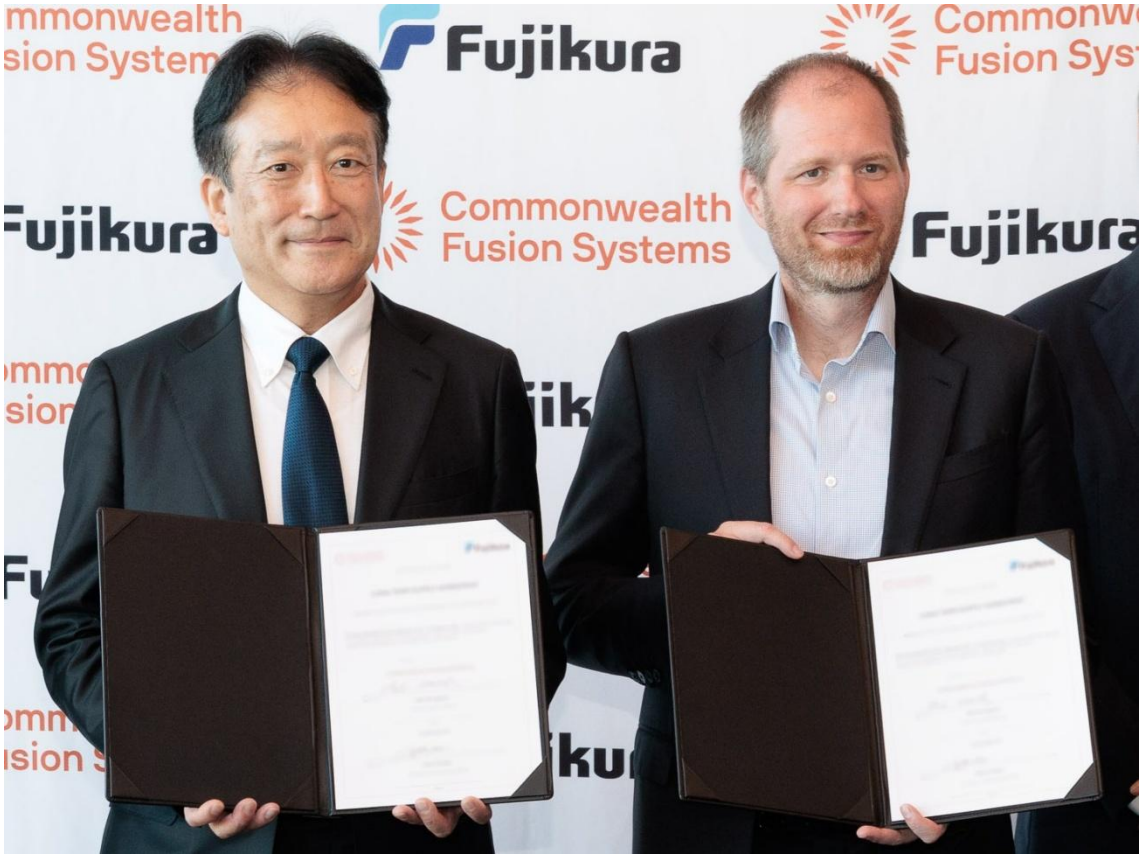
CFS agreed to purchase more than 10,000 km (3 GA-m) of high-temperature superconducting (HTS) tape from Fujikura that CFS will use in the development of its ARC power plants, starting with the first grid-scale plant being developed at the Fall Line Fusion Power Station in Chesterfield County, Virginia. Fujikura is investing in the expansion of its manufacturing capacity to enable the delivery of the HTS tape at scale. The agreement is the largest of its kind for HTS tape.

"This partnership with Fujikura demonstrates how we're actively placing orders and getting ready to execute our ARC power plant once our SPARC fusion machine achieves Q>1," said Bob Mumgaard, CEO and Co-founder of Commonwealth Fusion Systems. "We're pleased to find partners like Fujikura that understand our manufacturing priorities, share our sense of urgency, and are willing to make the investments necessary to help us scale so that together we can meet future demand for this crucial energy source worldwide."

The supply agreement is a major milestone toward the construction of ARC power plants and will help to strengthen the industrial supply chain essential to bring commercial fusion power to market. It also marks an important step in U.S.-Japan collaboration and in building the industrial ecosystem needed to support commercial fusion energy.

"With this agreement, Fujikura will continue to strengthen its position as a key supplier of HTS tape for ARC power plants while building a long-term business platform for the 2030s and

beyond, when commercial fusion power plants are expected to begin operation," said Naoki Okada, Representative Director, President and CEO of Fujikura Ltd. "Through these efforts, Fujikura aims to help support a sustainable energy future."



Signing ceremony held in the United States on September 28, 2026

About Commonwealth Fusion Systems

Commonwealth Fusion Systems is the world's largest and leading private fusion company. The company's marquee fusion project, SPARC, will generate net energy, paving the way for limitless carbon-free energy. The company has raised $4 billion in capital since it was founded in 2018.

SPARC®, ARC™, and Fall Line Fusion Power Station™ are trademarks of Commonwealth Fusion Systems®.

About Fujikura

Fujikura Ltd., founded in 1885, is a global technology company with more than 100 group companies worldwide. Building on over a century of expertise in connectivity technologies,

Fujikura provides advanced solutions for optical communications, electronics, and automotive applications. Today, the company supports the rapid expansion of digital infrastructure and contributes to the development of next-generation energy technologies, including fusion energy.



Image of CFS's ARC fusion power plant

About Fusion Energy

Fusion energy is released when light atomic nuclei, such as deuterium and tritium, fuse to form another nucleus, such as helium, in a reaction similar to the one that powers the sun. One gram of fusion fuel is estimated to produce energy equivalent to burning approximately eight metric tons of oil.

Fusion is attracting growing attention because it is considered the "holy grail" of energy production. It is an "always on" power source that has no emissions, is scalable, safe, and can be sited essentially anywhere. The fuel can be sourced from seawater, making it essentially unlimited and easily accessible — meaning fusion can provide permanent energy security as well.

Fusion power plants that use magnetic confinement[*2] require extremely strong magnetic fields to hold plasma at temperatures of about 100 million degrees Celsius. Fujikura's HTS tape combines high current-carrying performance with high mechanical strength in intense magnetic fields, making it suitable for the powerful superconducting magnets used to confine and control the plasma.

By enabling stronger magnetic fields, HTS magnets can help make fusion power plants compact,

which is expected to reduce the capital costs and make commercial fusion power plants more affordable and easier to build. Fujikura has already supported CFS' research and development by supplying HTS tape.

Notes

***1 High-temperature superconducting (HTS) tape**

Fujikura's HTS tape is based on its proprietary IBAD (Ion Beam Assisted Deposition) process, which Fujikura developed in 1991. It exhibits zero electrical resistance even at liquid-nitrogen temperature (−196°C) and can carry large currents despite its small cross-section. Because it maintains a high critical current even in high magnetic fields, it is an essential material for realizing compact, high-field fusion energy reactors.

***2 Magnetic-confinement (tokamak) approach**

A torus-shaped fusion energy device that uses a strong magnetic field to confine ultra-high temperature plasma. The strong magnetic fields are generated by toroidal field coils, poloidal field coils, and a central solenoid coil, all of which use high-temperature superconductors.