NEWS RELEASE

Niterra Co., Ltd.

Hitachi Plant Services Co., Ltd.

Niterra and Hitachi Plant Service Agree to Begin Demonstration Test for Liquefaction and Utilization of CO_2 Emitted from Factories

- Aiming to recover and liquefy up to 3 tons of CO_2 per day from October 2026 and convert it into regional resources -

NAGOYA, JAPAN, May 29, 2025 — Niterra Co., Ltd. (Headquarters: Higashi-ku, Nagoya; President: Takeshi Kawai; hereinafter "Niterra") and Hitachi Plant Services Co., Ltd. (Headquarters: Toshima-ku, Tokyo; President and Representative Director: Yusuke Kazama; hereinafter "Hitachi Plant Services") have agreed to begin a joint demonstration test aimed to recover and liquefy CO_2 emitted from the boilers at Niterra's Komaki Plant (Komaki City, Aichi Prefecture) from October 2026, and utilizing it as a carbon-recycled resource in the local community.

Reducing CO_2 emissions is a critical issue, particularly given the increasing emphasis on combating climate change. To this end, the companies will develop a system that combines Niterra's CO_2 recovery unit technology with Hitachi Plant Services' small-scale CO_2 liquefaction technology in hopes to produce up to 3 tons of liquefied CO_2 per day with a purity of 99.95% or higher to allow for testing of the effectiveness of using CO_2 as a recycled resource. Details of the test are as follows:

1. Details of the Demonstration Test

Objective: To recover and liquefy CO_2 emitted from Niterra's Komaki factory and demonstrate its utilization as a regional resource.
Location: Niterra Co., Ltd. Komaki Plant (2808, Iwasaki, Komaki, Aichi 485-8510)
Period: October 2026 - (Demonstration unit startup)
Content:

- CO_2 recovery from factory boiler exhaust gas using Niterra's CO_2 recovery unit
- CO_2 liquefaction using Hitachi Plant Services' CO_2 liquefaction unit
- Studying and demonstrating methods for utilizing liquefied CO_2 as a regional resource (e.g., in agriculture, manufacturing, and the food industry)

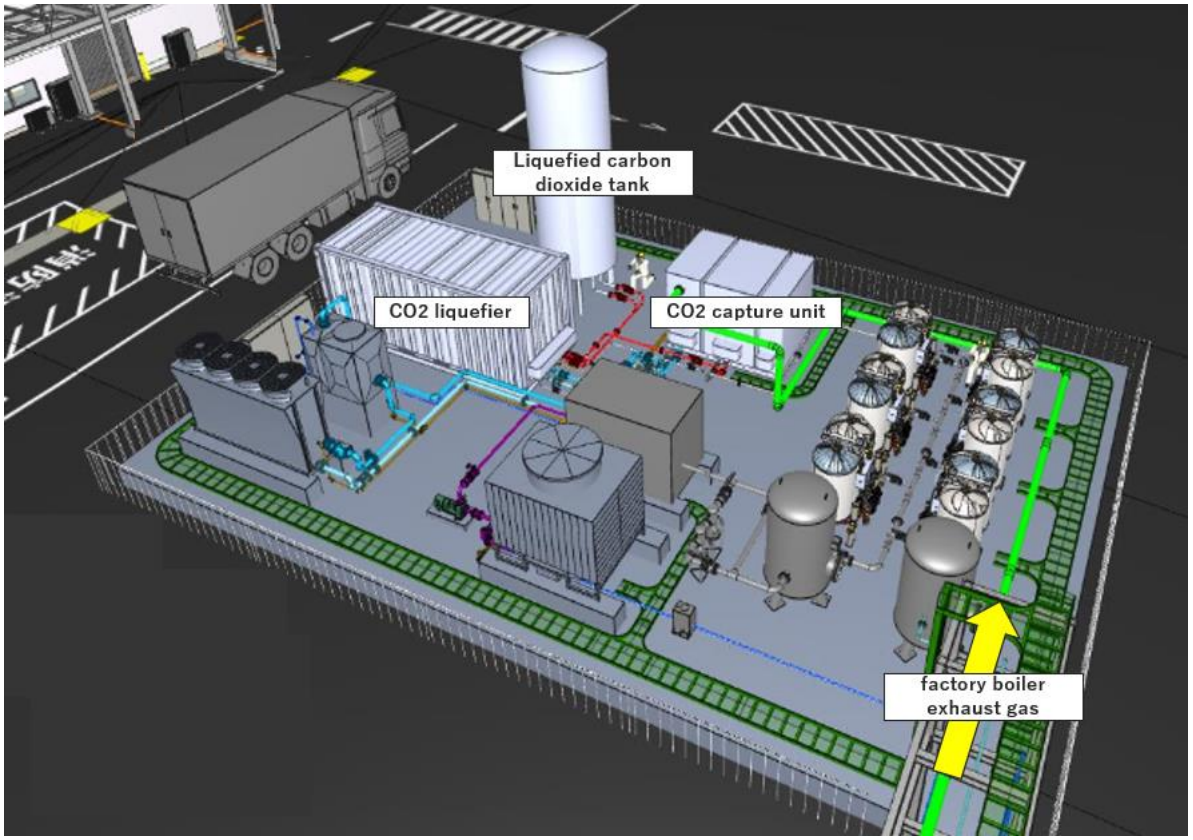
Target: Production of up to 3 tons of liquefied CO_2 per day with a purity of 99.95% or higher

2. Roles of Each Company

Niterra: Provision of CO_2 recovery unit, overall design of the demonstration test, and collaboration with the local communities
Hitachi Plant Services: Provision of CO_2 liquefaction unit and optimization of the liquefaction system
Both Companies: Visualizing of CO_2 from emission sources to its utilization destinations

3. Future Outlook

The companies plan to sell the liquefied CO_2 produced by this demonstration test within Aichi Prefecture in 2027. Furthermore, based on the knowledge gained from this test, they aim to establish the technology and sell CO_2 recovery and liquefaction systems with a processing capacity of up to 10 tons per day by 2027. These efforts will accelerate the commercialization of solutions to realize a regional circular society.



Demonstration Test Image

About Niterra

Founded in Nagoya, Japan in 1936, Niterra Co., Ltd. (formerly NGK SPARK PLUG CO., LTD.) is renowned for its NGK-branded spark plugs and NTK-branded ceramic products. Niterra, a coined word combining the Latin words "niteo" (shine) and "terra" (Earth), was introduced in April 2023 to express the reborn company's commitment to sustainability through an evolving portfolio focused on ceramics and beyond. Under the corporate message "IGNITE YOUR SPIRIT", Niterra is now expanding into the growth fields of mobility, environment & energy, and semiconductors. The company's consolidated revenues in fiscal 2024 (to March 2025) totaled 652.9 billion yen (4,267 million USD). Niterra has 31 bases in Japan and 62 overseas, and approximately 16,000 employees worldwide. Please visit https://www.niterragroup.com/english/

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About Hitachi Plant Services

Hitachi Plant Services is a comprehensive engineering company that aims to meet various customer needs in a wide range of fields such as air, water, and energy, striving to realize a comfortable society. From engineering various plants and factory facilities to providing maintenance services and renewals, we offer solutions that contribute to the growth of our customers' businesses and the resolution of social issues. Additionally, through solutions that enhance operational efficiency by collaborating with Hitachi's Lumada*1, which accelerates digital innovation, we contribute to both business growth and solving societal challenges.

*1 Lumada: A collective term for Hitachi's advanced digital technologies, solutions, services, and technologies that create value from customer data and accelerate digital innovation. For more details, please visit here