

December 8, 2023
ENEOS Corporation

ENEOS launched the APAC's first demonstration operations of capturing CO₂ from the air with Climeworks' DAC technology



ENEOS Corporation (President: Saito Takeshi; "ENEOS") announces that it has installed Climeworks' Direct Air Capture (DAC) unit in our Central Technical Research Laboratories, and today, launched its demonstration operations.

ENEOS has been working toward the realization of decarbonized society by 2025, as outlined in the "Roadmap for Carbon Recycling Technologies" formulated by Ministry of Economy, Trade and Industry. Production and commercialization of synthetic fuels is one of our goals, and for that aim we have been investigating capture technology of CO₂, raw material for synthetic fuels, not only from exhaust gases but from the air. The DAC technology purchased from Swiss firm Climeworks is expected to capture low concentration (ca. 0.04%) CO₂ from the air and release nearly 100% CO₂. Climeworks is the global leader in direct air capture technology, with over 15 DAC plants put into operation and over 120K hours of experience in operating them.

Our introduction of a DAC unit by Climeworks is the first case in the Asia Pacific region. We will proceed the demonstration experiments under the environment unique to Japan* and collaborate with carbon neutral initiatives such as utilization of captured CO₂ for the production of synthetic fuels.

Under the ENEOS Group's Long-Term Vision, we are taking on the challenge of achieving both "a stable supply of energy and materials" and "the realization of a carbon-neutral society." Through the exploring of CO₂ capture technology and the initiatives of production of synthetic fuels, we will promote the "energy transition," thereby contributing to the realization of the sustainable society.

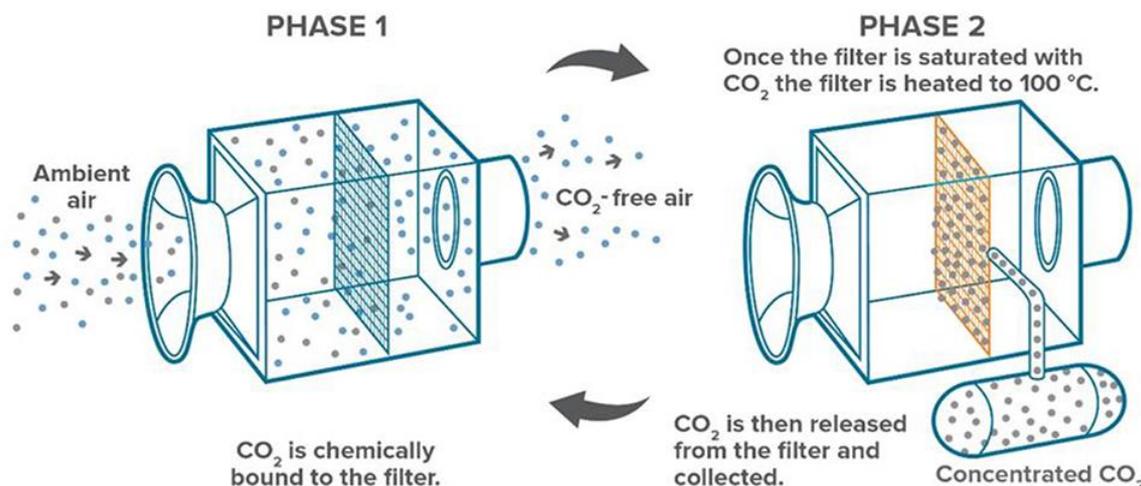
【Outline of DAC unit】

Location	Yokohama city, Kanagawa prefecture (ENEOS' Central Technical Research Laboratory)
The amount of CO ₂ capture	ca. 75 kg/day
Installation area	7 m × 7 m (49 m ²)
Construction company	Toyo Engineering Corporation

【Climeworks AG】

Name	Climeworks AG
Founding year	2009
Founding team	Dr. Jan Wurzbacher and Dr. Christoph Gebald

<Reference: Schematic illustration of Climeworks' DAC process>



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Citation: Beuttler C, Charles L and Wurzbacher J (2019) The Role of Direct Air Capture in Mitigation of Anthropogenic Greenhouse Gas Emissions. *Front. Clim.* 1:10. doi: 10.3389/fclim.2019.00010

* Japan has four distinct seasons, with large annual variations in temperature, high precipitation, and high temperatures and humidity.