



euglena Co signed an EPC contract with Chiyoda Corporation for the pilot plant for production of renewable jet and diesel fuels

~ With the construction schedule fixed, Made in Japan Biofuels Project is on track toward the goal to produce and supply renewable jet and diesel fuels for practical use by 2020 ~

euglena Co., Ltd. Chiyoda Corporation

euglena Co., Ltd. ("euglena Co", headquartered in Minato-ku, Tokyo; Mitsuru Izumo, President) and Chiyoda Corporation ("Chiyoda", headquartered in Yokohama City, Kanagawa, Keiichi Nakagaki, Senior Executive Vice President) are pleased to announce that today both companies signed an engineering, procurement and construction (EPC) contract for Japan's first pilot plant for production of renewable jet and diesel fuels in Yokohama. With this EPC contract signing, the commencement of the pilot plan has been set for June 2017, with a completion date of October 2018. This is a significant step forward toward the commercial production of renewable jet and diesel fuel in the first half of 2019.

On December 1, 2015, euglena Co announced a plan to produce and supply renewable jet and diesel fuels in Japan for practical use in such as commercial aviation and public road transportation by 2020 (Made in Japan Biofuels Project), with support from the City of Yokohama, Chiyoda, Itochu Enex Co., Ltd. ("Itochu Enex"), Isuzu Motors Limited ("Isuzu") and All Nippon Airways Co., Ltd. ("ANA"). Following this announcement, euglena Co has started working on the construction of the pilot plant, which includes basic design, notifications and applications to the relevant authorities, and land preparation of the planned construction site. Under the EPC contract signed today, the completion date of construction of the pilot plant will be October 31, 2018. Chiyoda is responsible for all of the EPC work to complete the construction by this date. The contract amount has been set; euglena Co has already secured funding for all the investment amounts including this contract amount, through a public equity offering and with cash reserves. Furthermore, as of February 10, 2017, euglena Co also concluded with Asahi Glass Co., Ltd. ("Asahi Glass") a fixed-term land lease agreement for the construction site.

With the signing of the EPC contract, euglena Co has completed the establishment of the renewable fuels production system, along with the preparation for the production and supply of renewable jet and diesel fuels in Japan for practical use by 2020.

< Summary of the pilot plant for production of renewable jet and diesel fuels >

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	Original plan	Current plan
	(as of December 1, 2015 (*1))	(as of February 10, 2017)
Planned construction site	1-1, Suehiro, Tsurumi-ku,	No change (*2)
	Yokohama-shi, Kanagawa, Japan	
	(the KEIHIN plant of Asahi Glass)	
Area	Approx. 9,000m ²	7,787.6m ²
Start of construction	By summer 2017	June 1, 2017
Completion of construction	By winter 2018	October 31, 2018 (*3)
Start of operation	By the first half of 2019	By the first half of 2019

Products	Renewable kerosene, renewable	No change
	diesel, renewable naphtha	
Total investment amount	To be decided	Approx. JPY 5.8 billion (*4)

Notes:

- (*1) The dates for start of construction, completion of construction and start of operation in this column are based on the revised construction schedule announced on August 12, 2016.
- (*2) A fixed-term land lease agreement with Asahi Glass was signed on February 10, 2017, and the actual leasing commences on June 1, 2017
- (*3) This is the date of completion of the construction defined under the EPC contract.
- (*4) In addition to the contract amount under the EPC contract, the investment amount also includes various expenses related to basic design of the pilot plant and land preparation of the planned construction site (some of which have already been paid).

< Latest appearance image of the pilot plant (as of February 10, 2017) >



- (1) Administrative building
- (2) Reactor device building
- (3) Utility plant
- (4) Storage area
- (5) Loading area

< Progress of Made in Japan Biofuels Project >

Made in Japan Biofuels Project has made steady progress in the preparations for both production and supply chain, along with the establishment of the production system. The current status of the project is described below.

- For the preparation of renewable fuels feedstock, on September 1, 2016, euglena Co announced a project to construct one of Japan's largest raceway for the cultivation of fuel-use microalgae. euglena Co is also engaged in discussion and research with Itochu Enex about feedstock procurement.
- For the operation of the pilot plant, euglena Co is moving forward with recruiting operating team members, including a plant manager.
- For the creation of an environment for the use of renewable jet fuel, euglena Co has participated in the "Committee for the Study of a Process Leading to Introduction of Renewable Jet Fuel for the 2020 Summer Olympic Games and Paralympic Games in Tokyo" and has worked with relevant parties to conduct studies on various logistics issues, such as product quality evaluations, mixing, storage, transportation, and refueling at the airport. euglena Co has also carried out preparatory studies and information sharing with ANA for use of renewable jet fuel in commercial flights.
- For the creation of an environment for the practical use of renewable diesel fuel, euglena Co, together with Isuzu, has initiated studies about the use of next-generation renewable diesel fuel in public road transportation.
- For the U.S. ASTM standards which renewable jet fuels have to comply with, the ASTM standardization
 work of the Biofuels ISOCONVERSION process technology is underway by Chevron Lummus Global &
 Applied Research Associates, the licenser of the technology adopted in the pilot plant.

euglena Co, with support from various partners and related parties, is committed to making further progress on Made in Japan Biofuels Project in order to realize the practical use of renewable jet and diesel fuels by 2020. After the completion of this project, euglena Co will begin to study and prepare the construction of a commercial plant. euglena Co is continuing its research and development and commercialization so that euglena Co continues to contribute to and encourage the broad use of renewable jet and diesel fuels in Japan, as well as to reduce Japan's greenhouse gas emissions.

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