

May 15, 2019
IEA Bioenergy Task 39 Business Meeting
Ispra, Italy

Biofuel Situation in Japan



“New Energy and Industrial Technology Development Organization”

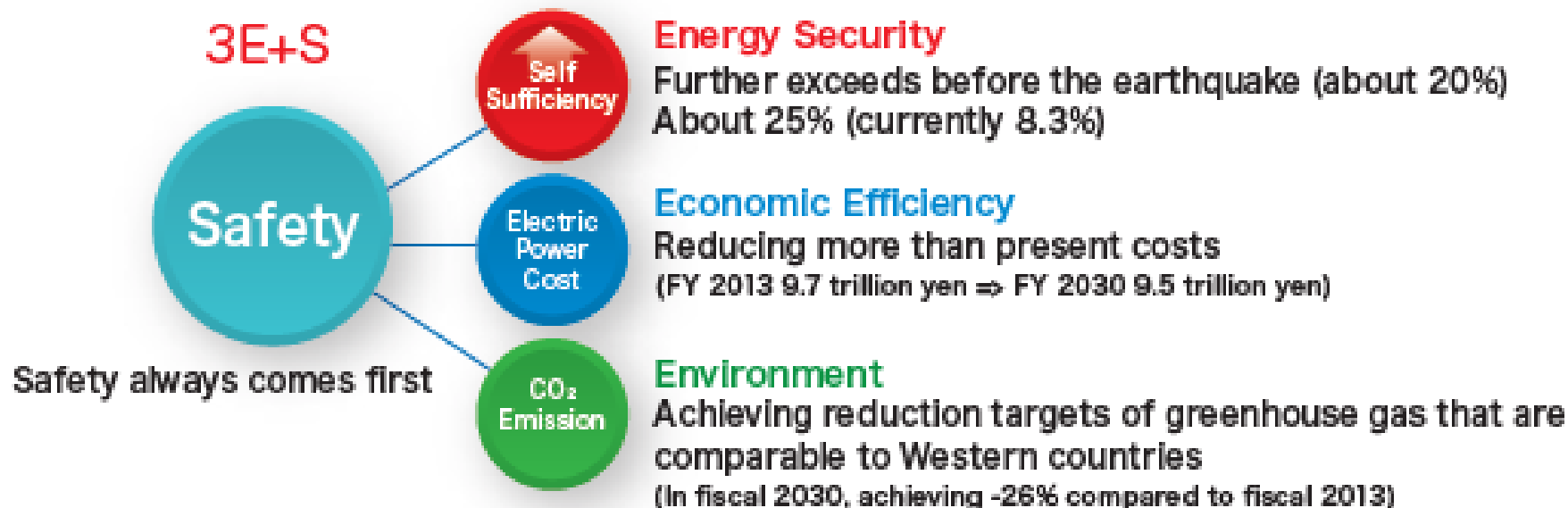
Country Representatives of Japan

Current Biofuel Situation in Japan

- ✓ Domestic bioethanol projects (conventional) in Japan do not lead to business and all the bioethanol is imported from Brasil at present.
- ✓ Simple increase of biofuel introduction at present may result in expansion of twin deficits and be inefficient compared to other means.

Biofuels are surely recognized as one of the potential alternatives in transportation sector to bring low carbon society, but simultaneously the introduction policy of biofuels shall be discussed with “3E+S” rationally.

Keeping in mind that Safety always comes first, in order to simultaneously achieve improvement of Energy Security, Economic Efficiency, and Environment Suitability (3E+S), continuous efforts are being implemented. It is indispensable to implement the multi-layered energy supply structure where each power source exhibits maximum performance and offsets weakness.



Demand change of fuels in Japan

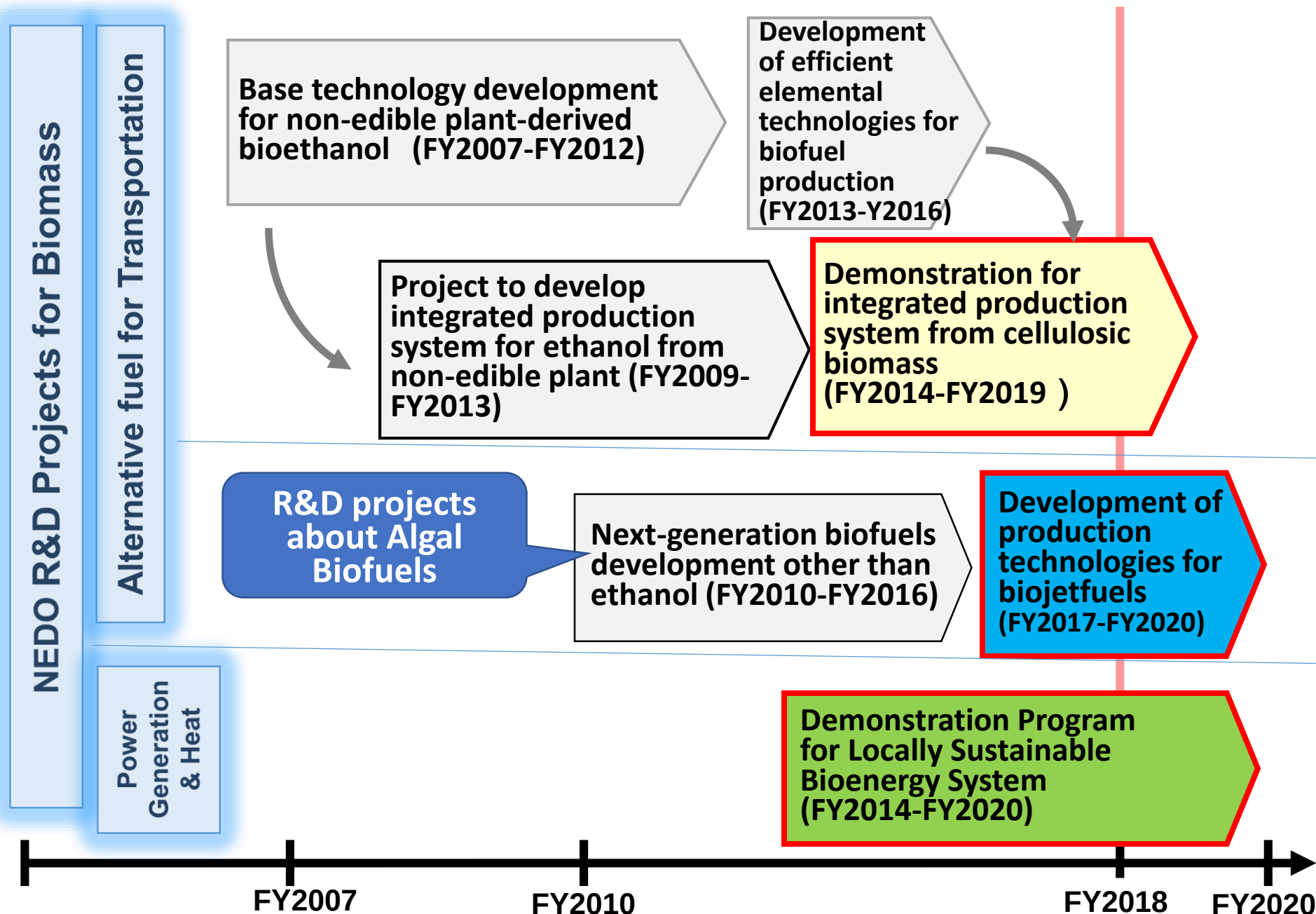
- ❑ Different from gasoline whose demand seems to decrease because of EV shift and structural reasons such as population reduction, large vehicle and airplane fossil fuels which need high energy density is expected to have steady demand.
- ❑ From the medium- and long-term perspective, introduction of biojet and biodiesel fuels shall be continuously investigated considering possibility of the policy resource investment.

Demand change of fuels in Japan

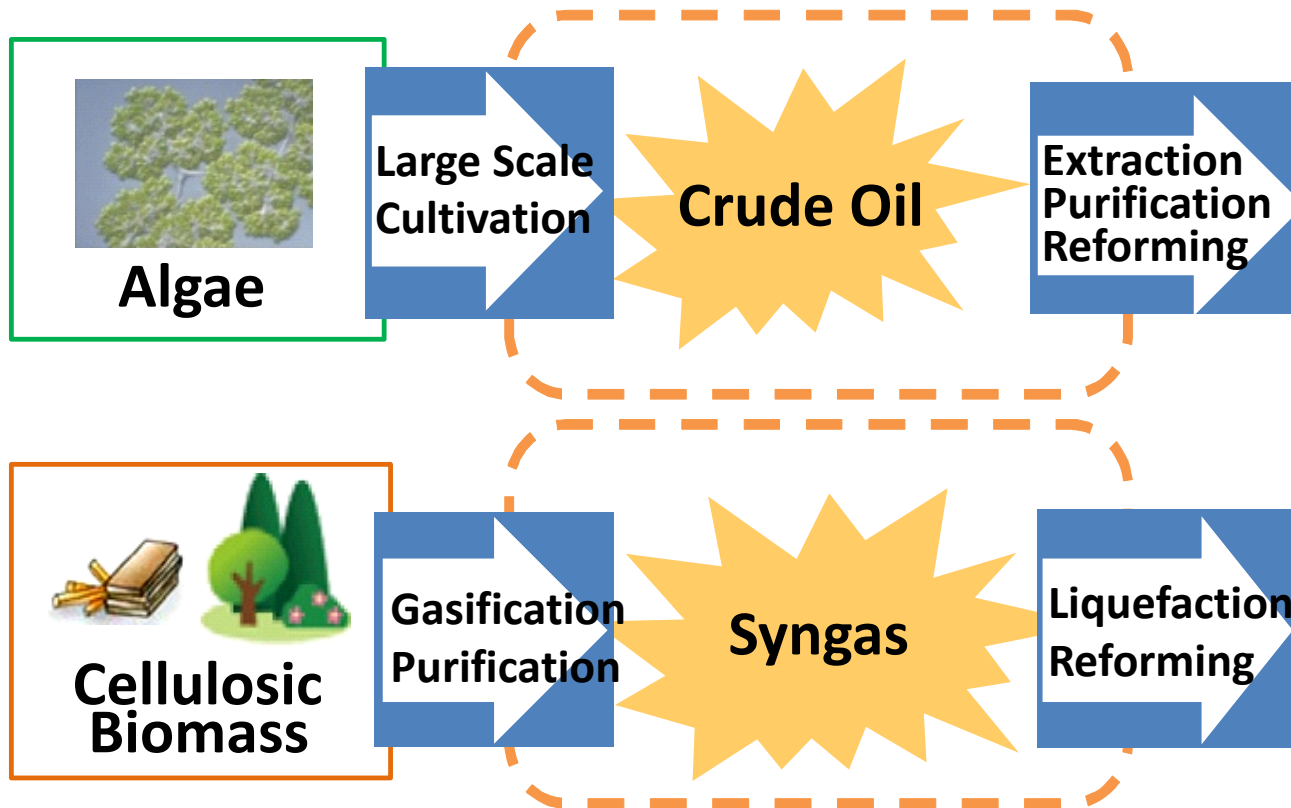
	2006FY	2021FY(calculate)	Decrease rate
Gasoline	60,550,000kL	47,050,000kL	▲22%
Jet fuel	5,390,000kL	5,340,000kL	▲1%
Diesel	36,610,000kL	33,360,000kL	▲9%

Source: Statistics of Agency for Natural Resource and Energy, Petroleum products demand and supply calculation 2017-2021

NEDO's Biomass Energy & fuels Project



Development of Production Technologies for Bio Jet Fuels



**Alternative
Aviation Fuels
with Bio Jet Fuels**

Development of an Integrated Pure Bio Jet Fuel Production Employing Fast-Breeding Botryococcus Braunii

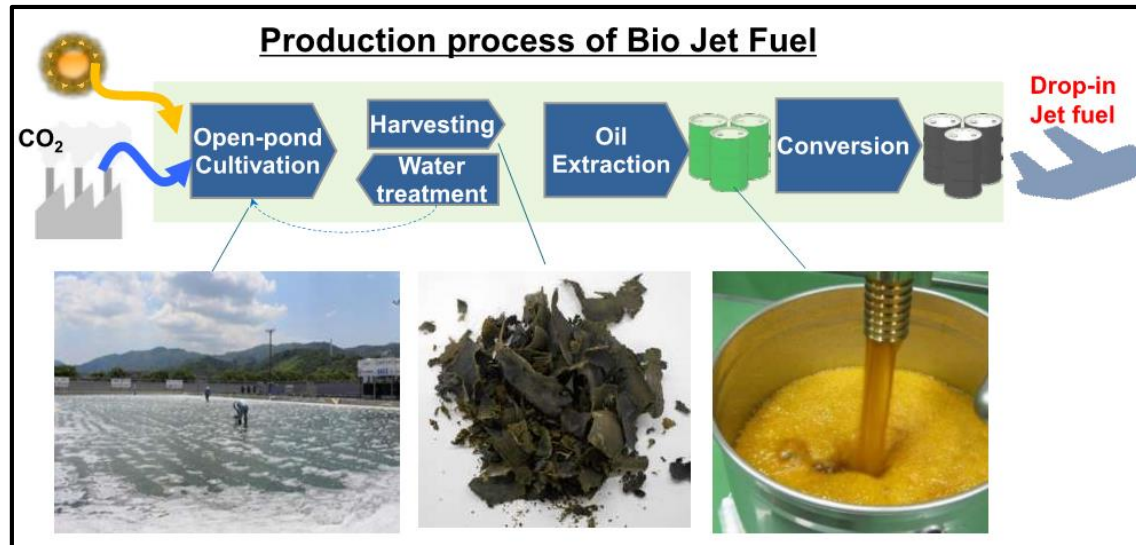
Technology development is conducted on an integrated manufacturing process for bio jet fuel derived from micro-algae.

Plant containing a cultivation pond in the scale of 10,000 m² is built in Thailand, for pilot-scale test employing fast-breeding Botryococcus braunii.

Additionally, issues involved in industrialization with greater efficiency and their solutions are examined for verification into the feasibility of stable, long-term and continuous operation, reduction of production cost, etc.

Location: Saraburi Province, Thailand (on property owned by Siam Cement Group)

Demonstration period: FY2017-FY2020



Source: IHI website