

PETROLEUM & CHEMICALS SOLUTION GROUP



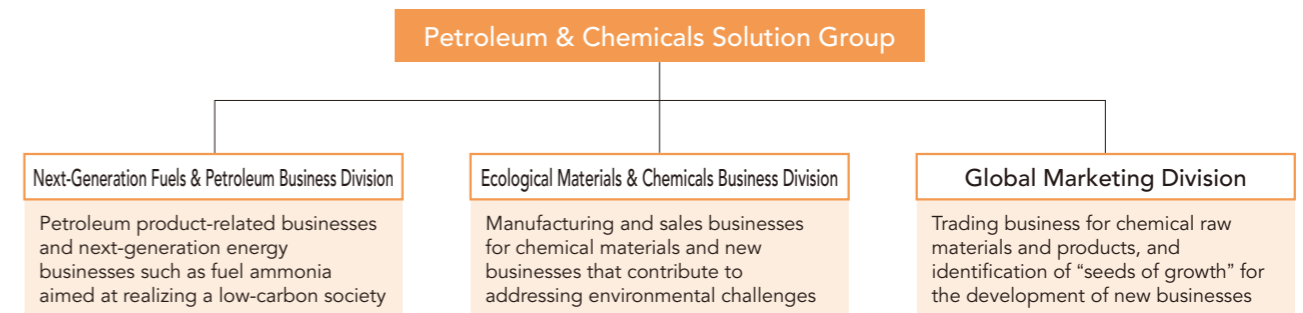
Our Vision



Osamu Takeuchi
Executive Vice President
Group CEO,
Petroleum & Chemicals
Solution Group

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Against a background of issues including climate change and marine plastics, the importance of transitioning to a decarbonized society and of reducing environmental impacts is growing day by day. Contributing to the achievement of a decarbonized society while steadily supplying the petroleum products and chemical materials indispensable to society and people's lives is our Group's most important theme. In the fields of energy and materials, we aim to be a Group that contributes to addressing societal challenges through the conception and execution of businesses that generate environmental and societal value in addition to economic value.



Materiality (Material Issues)

Related Material Issues



Contributing to Decarbonized Societies



Promoting Stable, Sustainable Societies and Lifestyles



Conserving and Effectively Utilizing Natural Capital

Relevance of Material Issues to the Business

Decarbonization is a top priority for the fuels and materials sectors which the Group operates. While supporting society by providing stable supplies during the transition period, our Group aims to realize a decarbonized and circular economy by commercializing the supply of fuels and materials with a low environmental impact, utilizing the knowledge and existing infrastructure developed through our business. In fuels for power generation, we will consider the commercialization of ammonia, an excellent means of transporting and storing hydrogen, as a key component in the practical implementation of hydrogen in society, which is expected to become widely used as a clean energy source.

In transportation, we will work toward the commercialization of sustainable aviation fuel (SAF), to reduce the carbon footprint of fuel for aviation which is considered to be difficult to electrify. In chemical materials, in addition to further strengthening our recycling business for plastics and other materials, we will work to build a bio-related business and a carbon recycling business that utilize CO₂ as a raw material, aiming to realize a circular economy and reduce CO₂ emissions on a large scale.

Group Strengths and Strategy



- Broad customer portfolio, industry presence, and market intelligence gained through trading and manufacturing businesses
- Conception skills and execution skills for next-generation fuels and environmentally conscious chemical material businesses (product recycling, bio-related, and carbon recycling), aimed at creating a decarbonized society
- Capability to construct a fuel ammonia business based on a long track record in electric power fuel supply and operational experience in the ammonia production business

We position the issues of adapting to next-generation energy (EX: energy transformation) and converting to lower-environmental-impact chemical materials that have equal functionality and that can be supplied as stably as existing products (MX: material transformation) as top-priority themes for our Group in the industries in which we operate. We have already started businesses in fuel ammonia, carbon recycling, bio-related, and product recycling. By strengthening and converting our core businesses, we will work toward quantitative and qualitative improvement of revenues and asset efficiency.

We will engage in a two-pronged strategy: "Reduce the environmental impact of existing operations while fulfilling our supply responsibilities and generating stable earnings" and "Present realistic, scaled solutions to the world in the areas of energy and materials to solve the challenges of decarbonization". In order to provide decarbonization solutions that meet customer needs, we will consider participating in EX/MX manufacturing businesses with a sense of scale and economic viability.

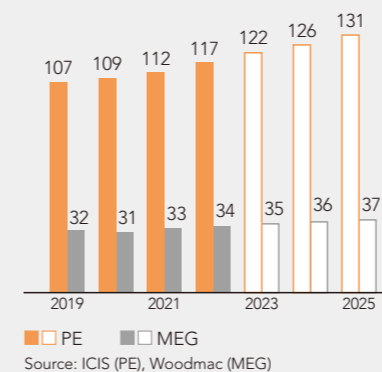
We will prioritize the following themes in formulating EX/MX projects. 1) Fuel ammonia: Establishing a low-carbon ammonia supply chain for power generation and expanding to other applications and industries. 2) Carbon recycled fuel and material business: Recycling CO₂ into a variety of carbon compounds. 3) Biofuels and materials business: Sustainable Bio-chemical business. 4) Product recycling business: Recycling of plastics in a way that contributes to a low-carbon, circular economy.

Major Growth Drivers

We will provide a stable supply of fuels and materials for which demand is strong, while implementing solutions that contribute to the realization of a decarbonized society.

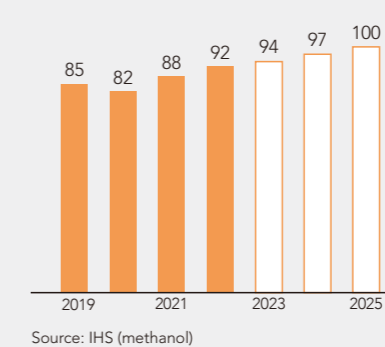
World-wide demand for PE/MEG

(unit: million metric tons)



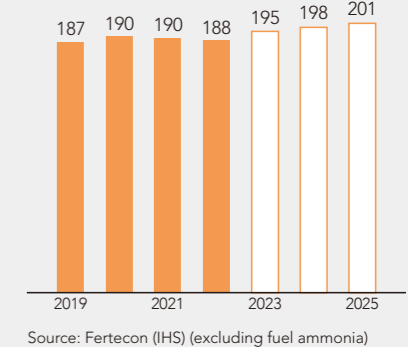
World-wide demand for methanol

(unit: million metric tons)



World-wide demand for ammonia

(unit: million metric tons)



Business Examples

In order to contribute to the decarbonization of fuels and materials, we will accelerate our efforts with a sense of scale and economic competitiveness based on the following four priority themes

