

# Next-Generation Energy Business Group

### LPG & Petroleum Feedstock Business Dept.

Works to ensure a stable supply of energy and petrochemical feedstock while also promoting low/zero carbon initiatives through businesses and transactions related to LPG, naphtha and crude oil.

### New Power Generation Fuels Business Dept.

## Biofuels & E-fuel Business Dept.

Works to decarbonize fuels through the development of next-generation fuels for transportation, including synthetic fuels derived from hydrogen and biofuels.

## Refinery Business Dept.

Leverages petroleum products businesses to promote initiatives that improve convenience and solve industrial issues to help with the transition to a carbon-neutral society.

The Next-Generation Energy Business Group is responsible for discovering and developing low-carbon/carbon-free technologies and building supply chains for next-generation energy in order to promote Energy Transformation (EX) initiatives, which is one of the main pillars of MC's growth strategy in its Midterm Corporate Strategy 2024.

In order to provide stable supplies of energy and resources while simultaneously supporting decarbonization efforts of society and businesses, we will help realize a carbon-neutral society by promoting a broad range of initiatives in EX-related value chains while leveraging MC's broad industrial network as a *sogo shosha*.

### Hydrogen Infrastructure Development Dept.

Aims to realize low-carbon and carbon-free societies through hydrogen supply chain related infrastructure investments that are essential to hydrogen society, as well as investments to hydrogen transportation technologies.

## Hydrogen Business Development Office

This office not only works to develop businesses related to clean hydrogen, but can also utilize existing infrastructures to develop e-methane, which has the potential to curb social costs.

## **Carbon Management Office**

Works on developing businesses related to carbon management and carbon credits, which are required to realize a carbon-neutral society.

## **New Technologies Office**

Invests in startups with promising technologies, which will be necessary for realizing low-carbon and carbon-free societies, and leverages new technologies to create business opportunities.



Hydrogen-related Venture Investments (UK)

#### AP Ventures

#### Investing in One of the World's Leading Venture Capital Firms

Through AP Ventures, a hydrogen-related UK venture capital firm, we are identifying direct investment opportunities in startups that have promising technologies necessary to develop the hydrogen society in the future. So far, we've invested in Hydrogenious, a German company with hydrogen storage and transportation technology, in hystar, a Norwegian company with water electrolysis technology, which is essential for green hydrogen production, and in Amogy, a US company with ammonia cracking technology. We will strive to utilize new technologies to further create business opportunities going forward.



Petroleum Product Sales Business (Japan)

# Mitsubishi Corporation Energy Co., Ltd.

Providing a Stable Supply of Oil

Mitsubishi Corporation Energy (MCE) was established on October 1, 2015, with the objective of bringing together and augmenting the management resources for Japan-based petroleum product sales. While providing a stable supply of petroleum products such as gasoline, kerosene, gas oil, fuel oil and asphalt, MCE is also promoting new DX businesses utilizing its retail networks, including e-commerce businesses through its subsidiary, Car Frontier.



# e-methane (Synthetic Methane) Development Project (USA)

e-methane Development Project Utilizing the Cameron LNG Terminal in the US

In order to decarbonize heat demand, which accounts for about 60% of the consumer and industrial sectors, it is expected that "e-methane" (synthetic methane), which can utilize existing gas infrastructure and curb additional social costs, will be introduced into the global energy mix. MC is conducting detailed joint studies with partners to establish a supply chain, and is aiming to produce e-methane from raw materials such as hydrogen, CO<sub>2</sub>, and water in order to realize export into Japan by 2030.



#### LPG Import & Sales Business (Japan)

# Astomos Energy Corporation One of the World's Largest LPG Players

MC Group company Mitsubishi Liquefied Petroleum Gas Co. and Idemitsu Kosan Group company Idemitsu Gas and Life Co., Ltd. came together to form Astomos Energy Corporation in 2006. Astomos is among the world's largest enterprises specializing in LPG, and handles approximately 25% of Japan's demand for the fuel. The company is also engaged in electricity retailing and promoting greater proliferation of residential fuel cells and high-efficiency water boilers.



## Hydrogen Supply Chain Business

(Singapore, Europe, Japan)

#### Developing an International Hydrogen Supply Chain Using SPERA Hydrogen™ Technology

SPERA Hydrogen technology developed by Chiyoda Corporation is a key technology that enables the safe and efficient long-distance transportation and storage of hydrogen, a product that is attracting attention as a source of clean, next-generation energy. In order to provide a stable supply of hydrogen to Singapore, Europe, Japan and other countries where hydrogen demand is expected to grow in the near future, MC is accelerating technical and commercial development toward the realization of an international hydrogen supply chain.



#### Fuel Ammonia Project

(USA, Canada, Indonesia, etc.)

#### Social Implementation of Next-Generation Fuel

As one approach to achieving a carbon-neutral society, we are aiming for social implementation of using ammonia as a fuel. Ammonia is attracting attention as a next-generation fuel source that does not emit  $\mathrm{CO}_2$  when burned. Together with our partners, we are developing projects around the world to construct large-scale and stable fuel ammonia supply chains.