

# Catalog of Products and Services of Japanese Companies Contributing to Decarbonization in Malaysia

June 2026

**JETRO**

**Japan External Trade Organization (JETRO)  
Kuala Lumpur Office**

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# I. Introduction

Amid the growing global focus on addressing climate change, Malaysia has set the goal of achieving carbon neutrality by 2050. In 2023, the Malaysian government announced the National Energy Transition Roadmap (NETR), the pillar of its decarbonization strategy. The roadmap highlights key areas such as renewable energy and hydrogen, alongside robust initiatives like the launch of a two-billion-ringgit fund to accelerate the energy transition.

Meanwhile, the Japanese government is actively supporting decarbonization efforts in ASEAN countries. In March 2023, the Ministry of Economy, Trade, and Industry launched the Asia Zero Emission Community (AZEC) initiative to promote collaboration and progress in this region. Japan continues to lead these efforts, offering substantial support for decarbonization across the ASEAN region.

In Malaysia, 83.5% of Japanese companies are either actively working on decarbonization or have plans to do so, making it the highest percentage among major ASEAN countries. Even small and medium-sized enterprises (SMEs) are making significant strides in this direction. Decarbonization has become a vital consideration for Japanese businesses operating in Malaysia, with many already taking proactive steps to align with this trend.

This catalog showcases products and services from Japanese companies that contribute to decarbonization and emission reductions. As Malaysia takes on the role of ASEAN chair in 2025, it is poised to lead sustainable development efforts across the region, drawing greater attention to its decarbonization initiatives. We hope this catalog serves as a valuable resource to foster collaboration and partnerships between Japanese and Malaysian companies, supporting the achievement of Malaysia's ambitious climate goals.

October 2025

Japan External Trade Organization (JETRO)

Kuala Lumpur Office

## II. Research Overview

### ■ Research Method/Target

- Six Energy Transition Levers are specified by the Malaysian government in the National Energy Transition Roadmap (NETR): (1) Energy Efficiency, 2) Renewable Energy, 3) Hydrogen, 4) Bioenergy, 5) Green Mobility, 6) CCUS/CCS (Note) and 10 Flagship Catalyst Projects (Efficient Switch, Renewable Energy Zone, Energy Storage, Energy Secure, Green Hydrogen, Hydrogen for Power, Biomass Demand Creation, Future Mobility, Future Fuel, and CCS). Major Japanese companies in each sectors in Malaysia are selected.
- We researched based on a list of Japanese companies in Malaysia. The list was compiled using publicly- exposed information such as company websites, press releases, reports, exhibition information, and through interviews with the companies.
- Japanese companies located outside Malaysia are also included if they are engaged in decarbonization efforts in Malaysia.
- The definitions of company categories are as follows:
  - Unlisted Company: Unlisted company established for over 10 years.
  - Start-up Company: Company established within the past 10 years.
  - Listed Company: Company listed in Malaysia or Japan.

※The classification of companies in this document is based on parent company and holding company information.

(Note) CCUS···Carbon Capture, Utilization, and Storage  
CCS·····Carbon Capture and Storage

# III. Listed Company Overview (1) By Company Size and Location

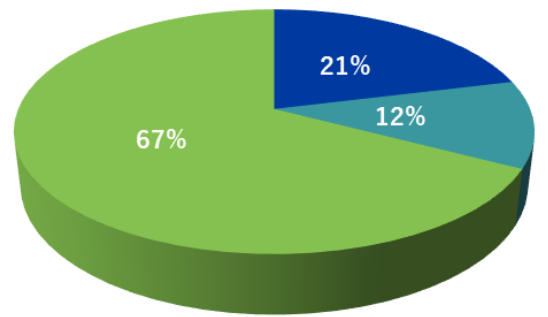
## ■ Total Number of Listed Companies

52 Companies

### < By Company Size >

- Unlisted Company 11 Companies
- Start-up Company 6 Companies
- Listed Company 35 Companies

### By Company Size

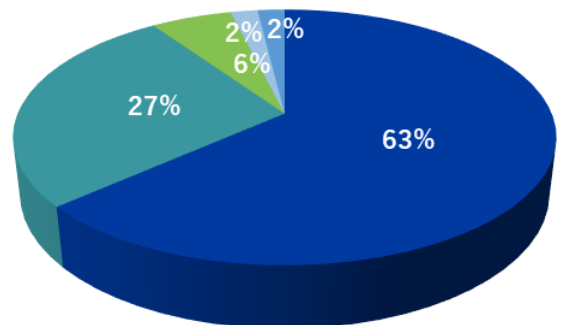


■ Unlisted companies    ■ Start-up companies

### < By Company Location >

- Malaysia 33 Companies
- Japan 14 Companies
- Singapore 3 Companies
- Indonesia 1 Companies
- Thailand 1 Companies

### By Company Location



■ Malaysia    ■ Japan    ■ Singapore    ■ Indonesia    ■ Thailand

# III. Listed Company Overview (2) By Sectors

<By Sectors>

(6 Energy Transition Levers and 10 Flagship Catalyst projects as defined by NETR)

Energy Efficiency

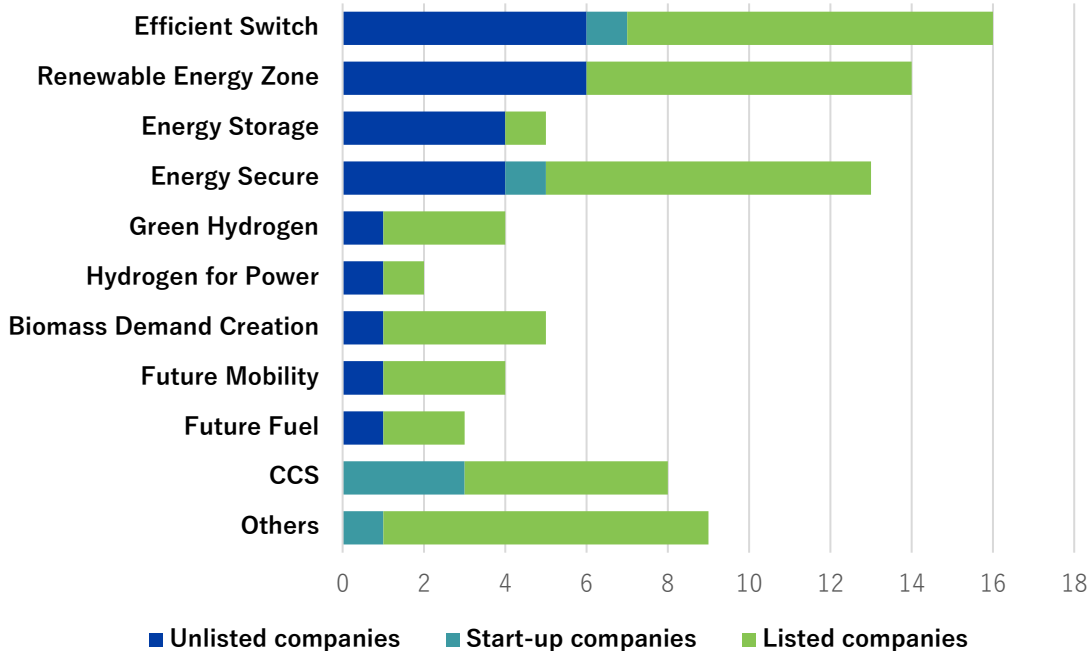
Renewable Energy

Hydrogen

Bioenergy

Green Mobility

CCUS/CCS









1. Companies with multiple businesses will be counted as multiple.
2. Cases that do not fall under the core business are counted as "Others".
























This catalog introduces the products and services of Japanese companies with icons along NETR sectors.







## IV. Listed Companies

Products and Services	Sectors	Company Name	Size	Page
<b>Energy Efficiency</b>				
ZEB (Decarbonization) Energy DX Platform	 	iForcom Inc.	Unlisted	1 2
Sustainable raw material and fuel production and procurement support	 	Amita Holdings Co., Ltd.	Listed	1 3
Use of simulation technology to achieve carbon neutrality		Cybernet Systems Malaysia Sdn.Bhd.	Unlisted	1 4
CMP WAY: Comprehensive Energy Solutions for Operating Factories	 	CM Plus Corporation	Unlisted	1 5
Greenhouse Gas Emissions Calculation and Visualization Solution	 	Zeroboard Inc.	Start-up	1 6
「NATRUS+e WSensor」 Earth-friendly and people-friendly automatic door sensor		Nabtesco Corporation	Listed	1 7
Using plate heat exchangers as our core technology, we provide thermal solutions	  	HISAKAWORKS S.E.A. SDN. BHD.	Listed	1 8
Decarbonization and energy-efficient products in heat treatment equipment		PT CHUGAI RO INDONESIA	Listed	1 9
Support for Obtaining GBI (Green Building Certification)	 	Plus PM Consultant Sdn.Bhd.	Unlisted	2 0
Fuel Switching and High-Efficiency Equipment (Oil → Gas)		MIURA BOILER MALAYSIA Sdn.Bhd.	Listed	2 1
Energy-Saving Solutions		MITSUBISHI ELECTRIC SALES MALAYSIA Sdn.Bhd.	Listed	2 2
Industrial Energy-Saving, Decarbonisation Solutions by MHI	 	Mitsubishi Heavy Industries Ltd.	Listed	2 3
Next-Generation Power Saving Unit ECOMO Significant additional savings, even for companies that have already maximized energy efficiency (energy-saving related product)		Yuasa Mechatronics (M) Sdn.Bhd.	Listed	2 4
Our proprietary LED brand "RENTIA" and the new radiative cooling material "Space Cool"		Recomm Business Solutions (Malaysia) Sdn.Bhd.	Listed	2 5
Decarbonization and Enhancing Corporate Value for Clients	  	LOGISTEED Malaysia Sdn.Bhd.	Unlisted	2 6













## IV. Listed Companies

Products and Services	Sectors	Company Name	Size	Page
<b>Energy Efficiency</b>				
MVR Evaporator, Vacuum Dryer		Hakuto Malaysia Sdn Bhd	Unlisted	2 7
<b>Renewable Energy</b>				
Eco-Conscious Smart Factory	 	Ajinomoto (Malaysia) Berhad	Unlisted	2 9
High-GWP Refrigerant Gas Recovery and Recycling Initiative		Iwatani Malaysia Sdn.Bhd.	Listed	3 0
Corporate Solar Power Self-Consumption Support Program	 	ENEOS Oil & Energy Asia Pte. Ltd.	Listed	3 1
Renewable Energy : Solar Power Project Support Program	 	KYOCERA Propel Network Sdn.Bhd.	Listed	3 2
Solar power supply service with no initial investment required	 	JFE Engineering (M) Sdn.Bhd.	Unlisted	3 3
Renewable Energy supply in Malaysia (Solar off-site PPA and environmental certificate procurement services)	 	Shizen Malaysia Sdn.Bhd.	Listed	3 4
Providing one-stop services to achieve environmental goals.	 	CHUDENKO Malaysia Sdn.Bhd.	Unlisted	3 5
Swirling Induction type TAKASAGO HVAC System SWIT® Takasago Clean Room Swirling Induction Type TCR-SWIT® Energy Saving Dehumidifier WINDS®Series		T.T.E. Engineering (M) Sdn.Bhd. Takasago Thermal Engineering Malaysia subsidiary	Listed	3 6
Smart energy technology demonstration study for green electricity distribution	  	Nippon Koei Co., Ltd. • Nippon Koei Energy Solutions Co., Ltd.	Listed	3 7
Hydrogen Production from Waste and Renewable Energy Utilization Scheme	  	BIOTECHWORKS-H2 Co.,Ltd	Start-up	3 8
Insurance products supporting Malaysia's transition to a decarbonized society	 	MSIG INSURANCE (Malaysia) Bhd	Listed	3 9
Self-consumption type solar power generation/ storage battery system providing solutions	  	Loop Energy Malaysia Sdn.Bhd.	Listed	4 0

## IV. Listed Companies

Products and Services	Sectors	Company Name	Size	Page
<b>Hydrogen</b>				
Coal-fired ammonia/ Biomass co-firing		IHI Corporation	Listed	4 2
Establishing a Clean Hydrogen Supply Chain		Sumitomo Corporation	Listed	4 3
Hydrogen Production Technology, Hydrogen and Ammonia Combustion Technology		Mitsubishi Heavy Industries Ltd.	Listed	4 4
<b>Bioenergy</b>				
Biomass-Based e-Methane Production Business		Osaka Gas Co., Ltd.	Listed	4 6
MATSURI		Chitose Laboratory Corp	Unlisted	4 7
HANWA (MALAYSIA) Sdn.Bhd.		HANWA (MALAYSIA) Sdn.Bhd.	Listed	4 8
Malaysia/Biomass-Based SAF Production Project		Marubeni Corporation	Listed	4 9
<b>Green Mobility</b>				
Car Air Conditioning System Solutions for Automotive Decarbonization		SANDEN AIR CONDITIONING(M) Sdn.Bhd.	Unlisted	5 1
Reducing CO <sub>2</sub> Emissions in Air Transportation Through the Use of Sustainable Aviation Fuel (SAF)		All Nippon Airways Co., Ltd.	Listed	5 2
A MaaS demonstration project integrating terminal transportation and public transportation in Kuala Lumpur		Nippon Koei Co., Ltd.	Listed	5 3
Windscreen Repair Recommendation for Automotive Windshield Repair		BERJAYA SOMPO INSURANCE Berhad	Listed	5 4
SUSTEO (Biofuel)		Euglena Co., Ltd	Listed	5 5

## IV. Listed Companies

Products and Services	Sectors	Company Name	Size	Page
<b>CCUS/CCS</b>				
CO2 Capture and Methanation		IHI Corporation	Listed	5 7
suene – Cloud Service for CO2 Emissions Visualization, Reduction, and Reporting		Asuene APAC Pte. Ltd.	Start-up	5 8
LNG Transportation and CCS Value Chain Development for Low-Carbon and Decarbonization Goals		Kawasaki Kisen Kaisha, Ltd.	Listed	5 9
Mitigating climate change and increasing farmers' income "Agricultural carbon credit creation project"		GREEN CARBON Co., Ltd.	Start-up	6 0
Southern Offshore Peninsular Malaysia CCS		Mitsui & Co., Ltd.	Listed	6 1
Initiatives for CCUS/CCS Value Chain by MHI		Mitsubishi Heavy Industries, Ltd.	Listed	6 2
Delivering High-Integrity Nature-Based Carbon Credits Through Satellite Intelligence		Archeda Inc.	Start-up	6 3
<b>Others</b>				
MUFG - Net Zero World "MUFG NOW"		MUFG Bank (Malaysia) Berhad	Listed	6 5
Decarbonization of Farmland and Generation of Carbon Credits Utilizing Satellites and AI		Sagri Co., Ltd.	Start-up	6 6
Decarbonization through Proper Management of Designated Industrial Waste		J&T Naza Alam Murni Sdn.Bhd.	Listed	6 7
Green Steel Utilizing the Mass Balance Approach		JFE Steel Corporation	Listed	6 8
Daikin Malaysia's Decarbonization Initiatives		Daikin Malaysia Sdn.Bhd.	Listed	6 9
Sustainable Finance Initiatives for Fulfilled Growth		Sumitomo Mitsui Banking Corporation Malaysia Berhad	Listed	7 0
Reducing Greenhouse Gases in Packaging Materials (Others)		Dynapac GF (Malaysia) Sdn.Bhd.	Listed	7 1
Mizuho Bank Malaysia's Commitment to Decarbonization		Mizuho Bank (Malaysia) Berhad	Listed	7 2
Business Development and Implementation Support in the GX (Green Transformation) and Decarbonization Sectors		Mitsubishi Research Institute, Inc.	Listed	7 3

## V. Company Details

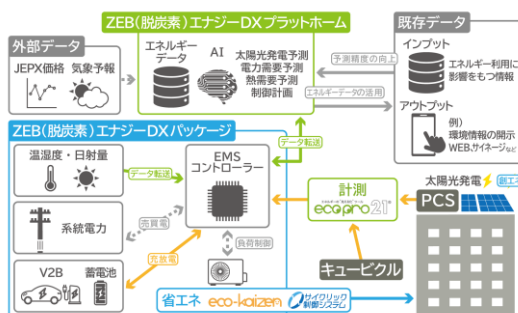
### 1. Energy Efficiency

- **iForcom Inc.**
- **Amita Holdings Co., Ltd.**
- **Cybernet Systems Malaysia Sdn.Bhd.**
- **CM Plus Corporation**
- **Zeroboard Inc.**
- **Nabtesco Corporation**
- **HISAKAWORKS S.E.A. SDN. BHD.**
- **PT CHUGAI RO INDONESIA**
- **Plus PM Consultant Sdn.Bhd.**
- **MIURA BOILER MALAYSIA Sdn.Bhd.**
- **MITSUBISHI ELECTRIC SALES MALAYSIA Sdn.Bhd.**
- **Mitsubishi Heavy Industries, Ltd.**
- **Yuasa Mechatronics (M) Sdn.Bhd.**
- **Recomm Business Solutions (Malaysia) Sdn.Bhd.**
- **LOGISTEED Malaysia Sdn.Bhd.**
- **Hakuto Malaysia Sdn Bhd**



# ZEB (Decarbonization) Energy DX Platform

## iForcom Inc.



## Overview of Products and Services

- A solution that enhances energy efficiency by improving the operation of building facilities.
- By efficiently managing the operation of facilities, considering factors such as electricity demand forecasting, renewable energy generation forecasting, and battery storage status, the solution helps reduce power consumption and mitigate GHG emissions.
- Key technologies include AI-based energy demand forecasting, IoT-based monitoring, and operational control technologies for facility management.

## Key Points of Decarbonization and Sustainability

- The solution can be implemented not only in newly built facilities but also in existing facilities with older equipment.
- By improving the operational rules of the equipment, it becomes possible to reduce GHG emissions and operate in a more sustainable manner.

## Achievements / Case Studies

- In Malaysia, the solution has been implemented in buildings such as the IRDA (Iskandar Regional Development Authority) building, as well as hotels in Johor and Kota Kinabalu.
- The solution has been deployed in over 2,500 locations across five ASEAN countries, including Malaysia, and in Japan.
- It has achieved an energy-saving effect of over 20% in air conditioning.



### Company Information

**Company Name:**  
iForcom Inc.

**Industry:**  
IT Services

**Address:**  
Yokohama, Kanagawa  
Prefecture, Japan

**Contact Person:**  
Masakazu Hirokawa  
**Phone :**  
+81-42-771-1456  
**Email:**  
[m.Hirokawa@iforcom.jp](mailto:m.Hirokawa@iforcom.jp)

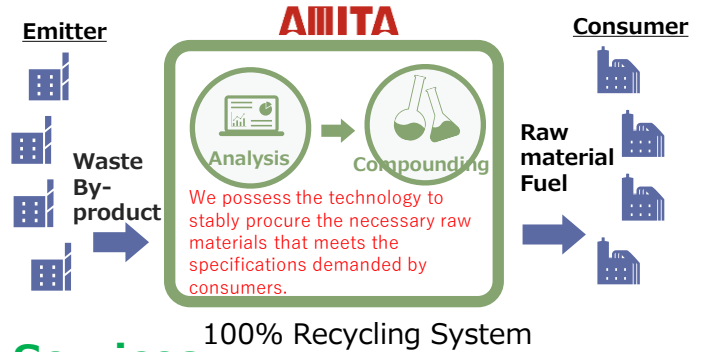
**Company Website:**  
<https://www.iforcom.jp/>

# Sustainable raw material and fuel production and procurement support

## Amita Holdings Co., Ltd.



Amita Berjaya Circular Resource Manufacturing Plant



### Overview of Products and Services

Since 2017, leveraging the expertise developed in Japan, we have established a joint venture with a local company in Malaysia and are operating a 100% recycling business. Rather than simply disposing of or partially recovering waste, our proprietary technology enables 100% recycling with no residual waste by converting designated waste into alternative raw materials (ARM) and alternative fuels (AF) as substitutes for natural raw materials and fossil fuels in cement production. In addition to utilizing industrial waste-derived materials and fuels, we also support sustainable sourcing for companies, which includes the use of household waste and biomass resources.

### Key Points of Decarbonization and Sustainability

By maximizing the circulation of resources that have already surfaced, we help reduce the consumption of underground resources (such as limestone for raw materials and coal for fuel) used by our clients, primarily cement companies.



### Achievements/ Case studies

- Annual production volume using alternative materials and fuel recycling 33,574 tons
- Estimated reduction in CO2 emissions by providing recycled products (alternative to fossil fuels) 5,036 tons



Award by Waste Management Association of Malaysia

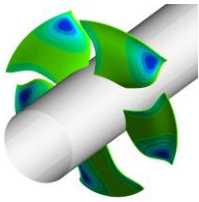


### Company Information

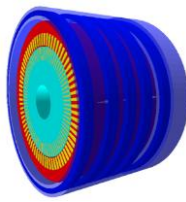
- Company Name:** Amita Holdings Co., Ltd.
- Industry:** Circular economy support
- Address:** Kyoto Prefecture (head office)  
Malaysian subsidiary is located in Kuala Lumpur
- Contact Person:** Overseas Business Management Group Atsuo Morita
- Phone :** 03-5281-8360
- Email:** jmorita@amita-net.co.jp
- Company website:** <http://www.amita-net.co.jp/>

# Use of simulation technology to achieve carbon neutrality

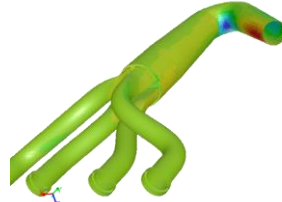
## Cybernet Systems Malaysia Sdn.Bhd.



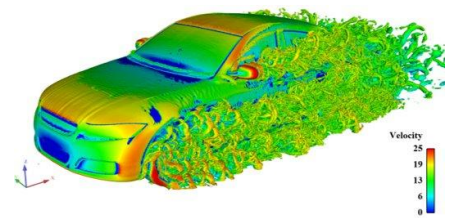
Optimal fin design



Cooling analysis of transmission motors.



Optimal manifold design



Fluid analysis around vehicles.

### Overview of Products and Services

We support activities toward carbon neutrality using various digital engineering technologies mainly on simulation. By utilizing simulation technology, it is possible to virtually perform prototyping, experiments, and searching for optimal shapes on a computer, which are essential for product development. As a result, we can reduce waste through prototyping and experimentation, and develop more energy-efficient products.

We provide these simulation software, as well as related training, consulting services, and contract services (we provide services not only to Malaysia but also to customers in other Southeast Asian countries such as Singapore, Vietnam, and Thailand).

### Key Points of Decarbonization and Sustainability

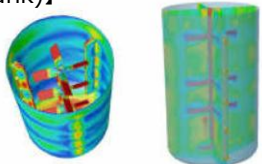
By using simulation technology to reproduce actual phenomena on a computer, you can deepen your knowledge of products and technologies with a minimum of prototyping and experiments. Various optimization techniques are also available.

For example, by using topology optimization techniques, it is possible to reduce product mass while maximizing its rigidity. It is also possible to streamline the development process itself by combining appropriate optimization methods and AI technology depending on the issue and purpose.

### Achievements/Case studies

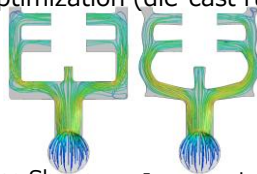
We will introduce various optimization simulation results. Simulation technology can be applied to various phenomena and purposes.

[Dimension optimization (stirred tank)]



Objective function: minimisation of the sedimentation area  
 Parameters: position of rotor blades, number of blades, pitch, etc.  
 Sedimentation area: **21% reduction**

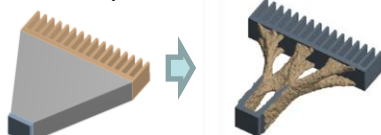
[Shape optimization (die-cast runners)]



Base Shape Improved shape.

Pressure loss reduction : **26%**

[Thermal & structural optimization (heat sinks)]



Base Shape Optimised shape

Objective function: thermal & structural  
 Constraints: 20% mass retention.

# CYBERNET

### Company Information

**Company Name :**

Cybernet Systems Malaysia Sdn.Bhd.

**Industry :**

Software

**Address :**

SO-32- 3 A, Menara 1, KL Eco City, Jalan Bangsar, 59200 Kuala Lumpur, Malaysia

**Contact Person :**

Takashi Sakakibara

**Phone :**

+603-2201-1221

**Email :**

[information@cybernet.asia](mailto:information@cybernet.asia)

**Company Website :**

<http://www.cybernet.asia/>

# CMP WAY: Comprehensive Energy Solutions for Operating Factories

## CM Plus Corporation

### “Comprehensive Decarbonization Engineering Solutions”

Engineering Approach

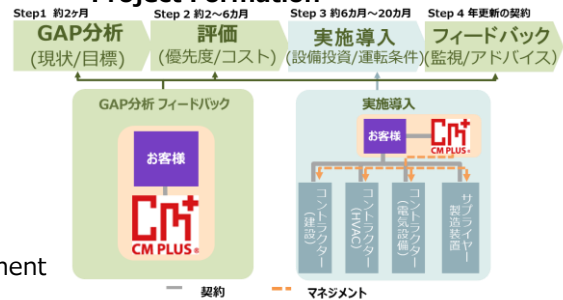
- Optimization of energy consumption
- Introduction of energy-efficient new equipment
- Integration with upgrade plans for production and utility facilities

### “Targeting the entire production system for high-value-added products”

Reevaluating energy efficiency under stringent environmental constraints

- Manufacturing equipment
- Buildings
- Air conditioning
- Electricity/Utility/Water

### Project Formation



## Overview of Products and Services

Based on its extensive engineering experience, CM Plus presents the "CMP Way," offering comprehensive decarbonization solutions for high-value-added production systems.

We reevaluate energy efficiency for production equipment, buildings, air conditioning, electricity, utilities, and water under stringent environmental constraints.

Our approach includes optimizing energy consumption, introducing energy-efficient new equipment, and aligning with upgrade plans for production and utility facilities, providing an all-encompassing decarbonization solution.

## Key Points of Decarbonization and Sustainability

To decarbonize high-value-added production systems, we conduct a GAP analysis focused on:

1. Addressing inefficient energy use
2. Selecting high-efficiency technologies
3. Optimizing operations
4. Offering financial solutions
5. Proposing renewable energy adoption

## Achievements/Case studies

### Stage 1: Feasibility Study

Conduct GAP analysis on production and utility systems, proposing comprehensive energy-saving methods and a roadmap to achieve targets.

### Stage 2: Solution Proposal

Provide technical solutions, including conceptual design, cost estimation, construction management, and validation.

### Stage 3: Advisory

Monitor baseline and roadmap progress, offering ongoing optimization and improvement advice.



## Company Information

### Company Name :

CM Plus Corporation

### Industry :

Facility Equipment Consulting

### Address :

6F Minato Mirai Grand Central Tower, 4-6-2 Minato Mirai, Nishi-ku, Yokohama, Kanagawa 220-0012, Japan

### Contact Person :

Mr.Inoue

### Phone :

(Japan)+81 45 222 8710

(Singapore) +65 6808 7840

### Email :

[inoue@cm-plus.com](mailto:inoue@cm-plus.com)

### Company Website :

<https://cm-plus.com/>

<https://cm-plus.co.jp/>

# Greenhouse Gas Emissions Calculation and Visualization Solution

## Zeroboard Inc.



### Overview of Products and Services

Calculating and visualizing greenhouse gas (GHG) emissions, which contribute to global warming, not only enhances corporate value but also aids in cost reduction. Zeroboard is a service that calculates GHG emissions in compliance with international standards and enables companies to manage initiatives aimed at emission reductions.

### Key Points of Decarbonization and Sustainability

Our service goes beyond GHG emissions calculation; by collaborating with over 100 partner companies, we provide tailored GHG reduction solutions that address each client's unique challenges. This approach enables us to responsibly support clients in achieving the more essential goal of actual GHG reductions.

### Achievements/Case studies

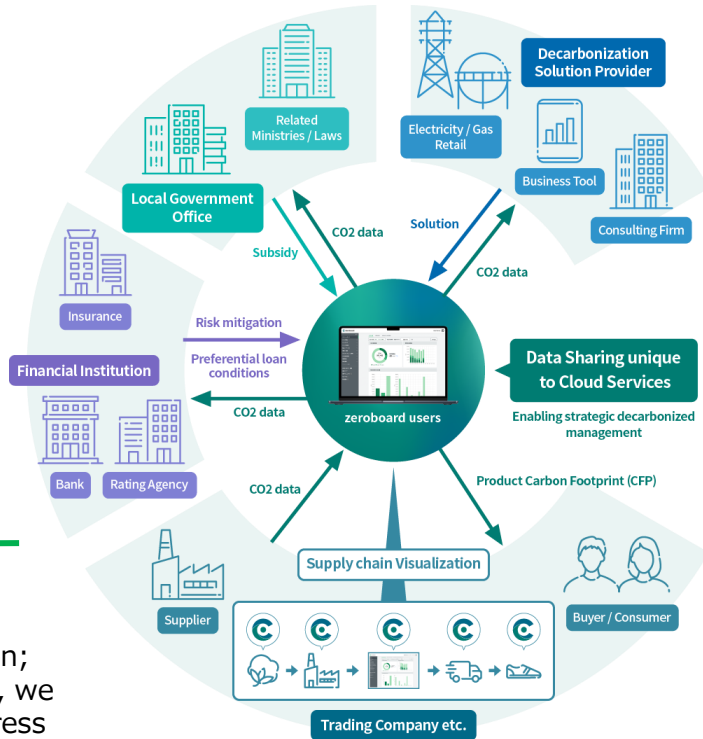
**With over 10,000 companies, including group companies, using the platform, Zeroboard serves a wide range of businesses**—from large companies focused on decarbonization management and publicly listed companies in the Prime Market required to disclose Scope 1-3 emissions, to medium-sized and smaller enterprises.

#### Case Studies:

**- Okuno Chemical Industries Co., Ltd.:** Employee awareness of decarbonization has evolved, with a growing number of new graduates citing environmental consideration as a reason for joining. The development of environmentally friendly products has also boosted the company's competitiveness.

**- Nippon Chemical Industrial Co., Ltd.:** Environmental initiatives, including decarbonization, have contributed to BCP (Business Continuity Planning) and an age-friendly work environment (for example, LED adoption reduced power consumption and provided brighter, safer lighting for older workers). Employee attitudes toward work have also shifted positively.

**-Bank of Ayudhya Public Co., Ltd.:** In February 2024, Ayudhya Bank Group in Thailand will adopt Zeroboard to enhance and streamline the calculation of GHG emissions.



### Company Information

**Company Name:**  
Zeroboard Inc.

**Industry:**  
IT

**Address:**  
Tokyo, Bangkok

**Contact Person:**  
Mr. Suzuki  
**Phone :**  
+66(0)935826365  
**Email:**  
[shintaro.suzuki@zeroboard.jp](mailto:shintaro.suzuki@zeroboard.jp)

**Company Website:**  
<https://zeroboard.jp/>

# 「NATRUS+e W Sensor」 Earth-friendly and people-friendly automatic door sensor Nabtesco Corporation

Image Sensing W

## Overview of Products and Services



### NATRUS+e W

- Equipped with dual sensors—infrared and imaging—"Image Sensing W" expands the detection area for traffic analysis by approximately four times compared to previous models. The wide detection area accurately identifies the speed and direction of people and objects, reducing unnecessary door openings.
- By minimizing idle open time (when the door opens with no pedestrian traffic), this system supports energy savings and CO<sub>2</sub> reduction in buildings.
- It prevents unnecessary airflow of outdoor temperature changes, enhancing indoor climate.
- By precisely tracking pedestrian movement, it predicts arrival times, allowing the door to open at the optimal moment based on walking speed, ensuring smooth passage.

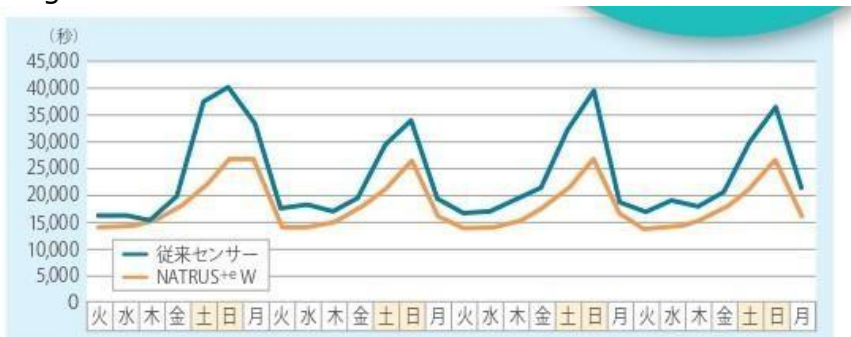
## Key Points of Decarbonization and Sustainability

NATRUS+e W utilizes unique sensing technology to reduce unnecessary automatic door openings. By decreasing idle open time, it helps lower energy consumption and air conditioning costs. Additionally, its excellent energy-saving performance contributes to CO<sub>2</sub> reduction.

## Achievements/Case studies

When a demo unit was installed on the automatic doors at the "NEOPASA Suruga Bay Numazu Downhill" service area on the Shin-Tomei Expressway, the following effects were observed:

- Reduction in unnecessary door openings: Approximately 21% reduction.
- Improvement in passage efficiency: Approximately 20% improvement in overall passage flow.
- Reduction in malfunctions: Decreased errors caused by fog-related issues.



(Graph) Comparison of Door Opening Times by Day of the Week



## Company Information

**Company name:**  
Nabtesco Corporation

**Industry:**  
Machine industry

**Address:**  
102-0093  
JA Mutual Aid Building, 2-7-9  
Hirakawacho, Chiyoda-ku,  
Tokyo

**Contact Person:**  
XiaoLi Li  
Housing Environment Company  
Sales Department Sales  
Promotion Section  
**Phone :**  
+813-5213 1157  
**Email :**  
[Xiaoli\\_Li@nabtesco.com](mailto:Xiaoli_Li@nabtesco.com)

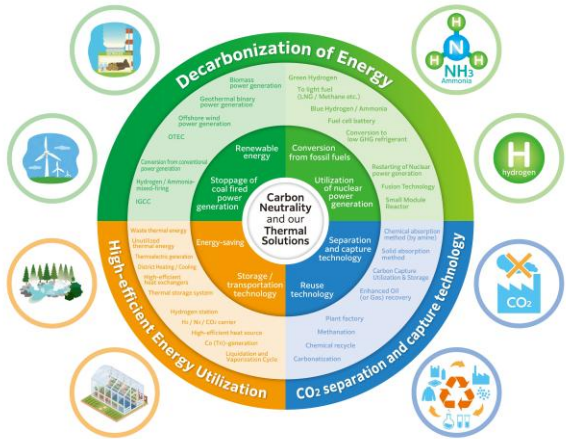
**Corporate website:**  
<https://nabco.nabtesco.com/en/>

# Using plate heat exchangers as our core technology, we provide thermal solutions

## HISAKAWORKS S.E.A. SDN. BHD.

### Overview of Products and Services

Plate heat exchangers are used for heating, cooling, sterilization, heat recovery, condensation, and other applications in processes in all industries, including chemical, food, air conditioning and sanitation, marine, pulp and paper, machinery and metals, and steel, contributing to effective use of resources and efficiency improvement of production facilities. We will further accelerate our efforts to achieve decarbonized society by 2050.

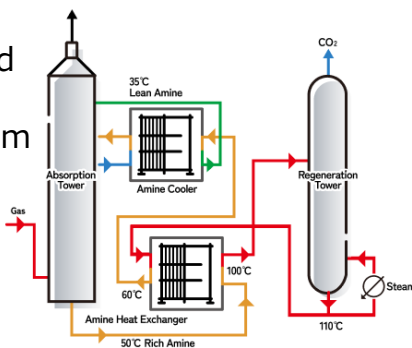


### Key Points of Decarbonization and Sustainability

Plate heat exchangers have high performance, extremely high heat exchange efficiency, and can utilize extreme temperature differences. They can play an important role in realizing a sustainable society by recovering waste heat generated in factories and power plants and by utilizing waste heat generated during power generation. It is also possible to utilize unused heat sources such as seawater and river water.

### Achievements/Case studies

In the chemical absorption method using amine solution, one of the CO<sub>2</sub> separation and capture technologies, the process of recovering CO<sub>2</sub> from combustion exhaust gas requires significant energy consumption. Plate heat exchangers can achieve high plant efficiency by recovering heat from the amine solution.



### Company Information

**Company Name:**  
HISAKAWORKS S.E.A. SDN. BHD.

**Industry:**  
Manufacturing

**Address:**  
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**Contact Person:**  
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[h-iwasa@hisaka.co.jp](mailto:h-iwasa@hisaka.co.jp)

**Company website:**  
<https://hisaka-asia.com/>

# Decarbonization and energy-efficient products in heat treatment equipment

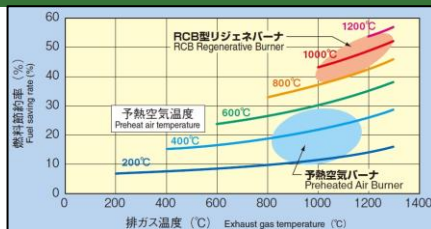
## PT. CHUGAI RO INDONESIA



Hydrogen burner



Regenerative burner



Regenerative Burner Fuel Saving Rate Chart

### Overview of Products and Services

1. Burners and combustion control equipment (hydrogen burners, ammonia burners, regenerative burners, oxygen burners, etc.)
2. Heating furnaces and heat treatment furnaces for steel and non-ferrous metals (SUS-APL/BAL, Cu-APL/BAL, AL-CAL, CGL, H2-BAF, CCL/AL-CCL)
3. Heat treatment furnaces for automotive and machine parts, battery, circuit boards, catalysts, magnetic materials, profile materials, pipes, and wire rods
4. Air purification equipment (RTO), environmental process equipment (multi-tube rotary kilns, fluidized bed heating equipment)
5. Maintenance support for remote locations (regardless of furnace manufacturer)
6. ASEAN locations include not only Indonesia but also Thailand, covering the entire ASEAN region through these two hubs.

### Key Points of Decarbonization and Sustainability

1. Development of cutting-edge technology for heat sources, such as hydrogen burners.
2. Energy-saving design and insulation design for the heating chamber.
3. The world's largest range of heat treatment equipment handled.  
→ Only Chugai Ro has the ability to approach energy saving and decarbonization from various angles worldwide.

Whether you wish to:

- "Change only the fuel of the currently used burner,"
- "Increase combustion efficiency within a limited budget,"
- "Reduce heat radiation from the furnace without stopping operation to lower costs,"

We offer various options that meet your specific requirements.

### Achievements/Case studies

(ASEAN)

- RTO and Regenerative Burner Deliveries in ASEAN
- Significant track record in delivering RTOs (Regenerative Thermal Oxidizers) and regenerative burners across various ASEAN countries.
- Extensive maintenance experience for equipment from other manufacturers.
- Proven success in energy-saving and workplace environment improvements through high-performance insulation materials and exterior insulation construction.

(Japan)

- 1994: Developed and began selling heat recovery exhaust gas treatment systems, now with over 320 units delivered, making it the top choice in Japan.
- 2018: Co-developed the world's first general-purpose hydrogen burner with Toyota Motor Corporation.
- 2021: Selected for NEDO's "Energy and Environmental New Technology Leading Research Program (Decarbonization of Industrial Furnaces through Innovative Ammonia Combustion)" and "Ammonia Co-firing Power Generation Technology Demonstration Project."
- 2022: Received an order for Japan's first hydrogen combustion exhaust gas treatment system.
- 2023: Participated in the Ministry of the Environment's JCM project, "Decarbonization and Smart City Formation Project in Sakai City, Japan and Vietnam."
- 2023: Selected for NEDO's "Green Innovation Fund Project/Decarbonization of Heat Processes in the Manufacturing Sector."



### Company Information

**Company name:**

PT. CHUGAI RO INDONESIA

**Industry:**

Construction

**Address :**

Menara Global Suite B-1, 6th Floor, Jl.Jendral Gatot Subroto Kav.27, Kuningan. Setiabudi, Jakarta Selatan 12950

**Contact Person :**

Teppei Hagiwara

**Contact number:**

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**Phone :**

+62-0811-8000-1341

**Email :**

[Teppei.Hagiwara@n.chugai.co.jp](mailto:Teppei.Hagiwara@n.chugai.co.jp)

**Corporate website :**

<https://chugai.co.jp/>

# Support for Obtaining GBI (Green Building Certification) Plus PM Consultant Sdn.Bhd.

## Overview of Products and Services

As a project management (PM) consultant for construction projects, we provide comprehensive support for obtaining the Green Building Index (GBI). From the planning stage, we assist with the introduction and selection of GBI consultants, support cost estimation for achieving various GBI rankings, and develop scenarios for obtaining GBI certification. Through these efforts, we promote the overall sustainability of the project.



## Key Points of Decarbonization and Sustainability

- 1. Support for GBI Certification**  
Through obtaining the Green Building Index (GBI) certification, we enhance the energy efficiency and environmental performance of buildings, contributing to a decarbonized society.
- 2. Support from the Planning Stage**  
From the early stages of the project, we assist in selecting GBI consultants and adjusting construction costs, effectively advancing sustainable construction practices.
- 3. Minimization of Environmental Impact**  
We develop scenarios for achieving each GBI rank, reducing energy consumption and waste, and minimizing the overall environmental impact of the project.

## Achievements/Case studies

We supported the acquisition of the Green Building Index (GBI) certification from the early stages of two major projects: the relocation project of Japanese food processing company A and the new construction of hazardous material warehouse T, a German company. In both projects, we provided comprehensive support, overseeing the entire process from selecting GBI consultants to adjusting costs for achieving each rank.

The decision for Plus.



**Company Information**

**Company name:**  
Plus PM Consultant Sdn.Bhd.

**Industry:**  
Construction Consulting

**Address :**  
KL, Malaysia

**Contact Person :**  
Morino

**Phone :**  
03-2712-0263

**Email :**  
[y\\_morino@pluspmc.com](mailto:y_morino@pluspmc.com)

**Corporate website :**  
<https://www.plus-pm.com/ja/>

# Fuel Switching and High-Efficiency Equipment (Oil → Gas)

## MIURA BOILER MALAYSIA SDN.BHD.

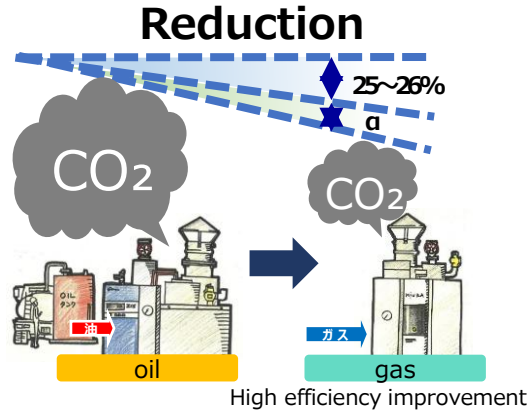
### Overview of Products and Services

**1. Fuel Switching and High-Efficiency Equipment (Oil → Gas)** Switching the fuel of boilers from oil to gas can reduce CO<sub>2</sub> emissions by approximately 26%. This change could potentially reduce up to 1.79 million tons of CO<sub>2</sub> by 2030.

**2. Waste Heat Recovery and Utilization** By combining waste heat recovery boilers with heat pumps, unused heat can be effectively utilized. Additionally, heat recovery compressors can convert heat that is typically wasted into useful energy. This presents an opportunity to reduce CO<sub>2</sub> emissions by 620,000 tons annually.

**3. DX (Visualization)** Both Miura products and other manufacturers' equipment can be monitored to visualize energy usage. This can be done via computers, contributing to energy management and energy savings through monitoring.

**4. DX (Energy Audit)** Energy efficiency diagnostics are provided for the entire factory, not just individual equipment—covering steam, air, water, and electricity. We offer comprehensive improvement proposals for overall energy efficiency.



By switching from oil to gas, approximately 25-26% of CO<sub>2</sub> can be reduced! Additionally, with improved boiler efficiency, further CO<sub>2</sub> reduction (=α) and energy savings are possible (CO<sub>2</sub> reduction is also achievable with gas-to-gas conversion).

### Key Points of Decarbonization and Sustainability

Our goal is to switch over 90% of operational boilers to gas-fired boilers, which are the current mainstream, by 2030. Just by switching fuels, we can reduce CO<sub>2</sub> emissions by approximately 26% per unit. Additionally, through improving boiler efficiency, which enables more steam production with less fuel, we can expect even further CO<sub>2</sub> reductions. By achieving energy savings, we aim to reduce 1.79 million tons of CO<sub>2</sub> between 2002 and 2030. Instead of incurring significant costs, Miura's approach is to start with achievable steps and gradually implement improvements.

### Achievements/Case studies

Starting in 2024, we are collaborating with Yamanashi Prefecture and Suntory to promote the use of "green hydrogen" produced from solar power. Additionally, through our partnership with Ehime Prefecture and Shikoku Electric Power, we joined demonstration experiments starting in 2024. Hydrogen-fired boilers were commercialized in 2017, and we have successfully reduced NO<sub>x</sub> emissions to below the national standards for the first time in the country.



### Company Information

**Company name :**  
MIURA BOILER MALAYSIA SDN.BHD.

**Industry :**  
Energy

**Address :**  
22A,Jalan Teluk Kapas N27/N Sentral  
27 Seksyen 27,40400 Shah Alam

**Contact Person :**  
Miyaoka

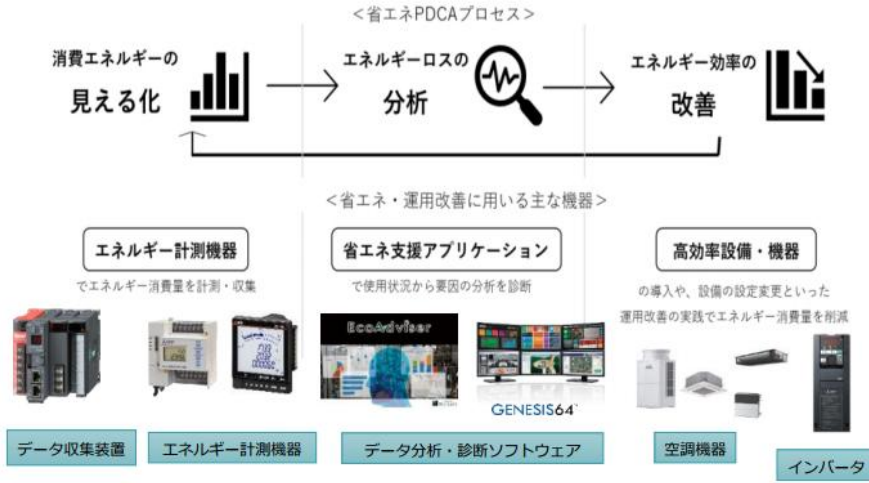
**Phone :**  
+603 2242 3335

**Email :**  
[miyaoka\\_hideki@miuraz.co.jp](mailto:miyaoka_hideki@miuraz.co.jp)

**Corporate website :**  
<https://miura.com.my>

# Energy-Saving Solutions

## Mitsubishi Electric Sales Malaysia Sdn.Bhd.



### Overview of Products and Services

We comprehensively support CO2 reduction in buildings and factories by promoting energy-saving through visualization, analysis, and improvement of energy consumption using measurement devices, applications, and high-efficiency equipment.

### Key Points of Decarbonization and Sustainability

«Energy-Saving PDCA System»

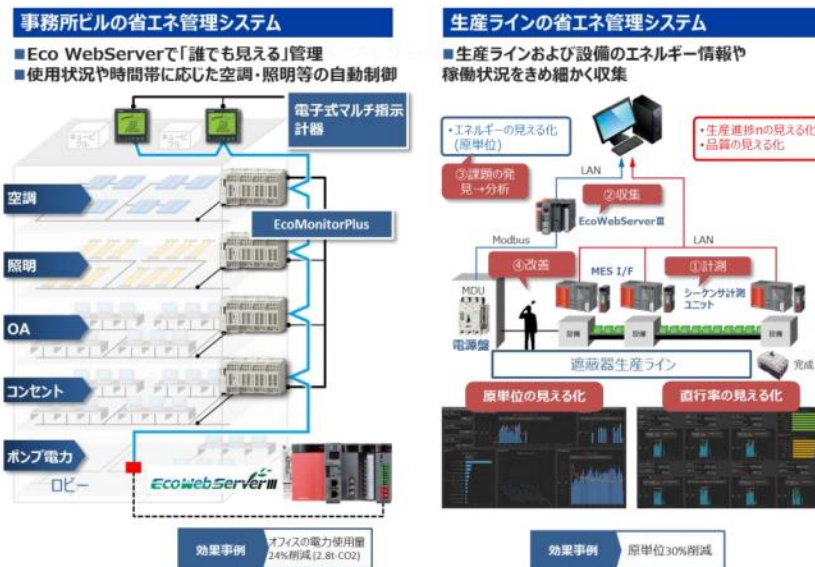
- Energy visualization
- Analysis of energy losses
- Introduction of high-efficiency equipment
- Energy-saving support applications

Through these processes, we help reduce energy waste and CO2 emissions, providing a foundation for sustainable operations in businesses and facilities.

### Achievements/Case studies

<Example of System Configuration for Buildings and Factories>

Case Study: Mitsubishi Electric Corporation Fukuyama Works



### Company Information

**Company Name :**  
MITSUBISHI ELECTRIC SALES  
MALAYSIA Sdn.Bhd.

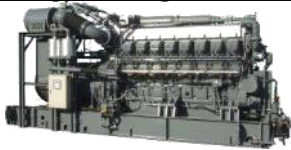
**Contact Person :**  
Mr. Miyajima Daisuke  
**Phone :**  
+603-7958 6546  
**Email :**  
[Miyajima.Daisuke@asia.meap.com](mailto:Miyajima.Daisuke@asia.meap.com)

**Company Website :**  
<https://www.mitsubishielectricfa.com.my/>

# Industrial Energy-Saving, Decarbonisation Solutions by MHI

## Mitsubishi Heavy Industries, Ltd.

Energy saving : Product Line-up



Natural Gas Engine Power Generation



High Efficiency Turbo Chillers



Heat Pump



Waste Heat Recovery Power Generation



Compact CO<sub>2</sub> Capture System

### Overview of Products and Services

Mitsubishi Heavy Industries Group provides a wide variety of technologies for decarbonisation and achieving a low carbon society (energy transition, energy saving, electrification, CO<sub>2</sub> recovery etc) according to the needs of customers. The reduction of CO<sub>2</sub> emissions is an important business challenge in Malaysia and while rooftop solar power generation etc is being introduced, the effectiveness may depend on power generation capacity or output fluctuations. As CO<sub>2</sub> emission sources differ with industries and factories, it is important to accurately assess the current situation according to CO<sub>2</sub> emission scope, and select the appropriate solution while ensuring that economic performance is not compromised.

### Key Points of Decarbonization and Sustainability

Our company supports the reduction of CO<sub>2</sub> emissions for the respective scopes, through the following solutions.

#### Scope 1 (Direct Emissions)

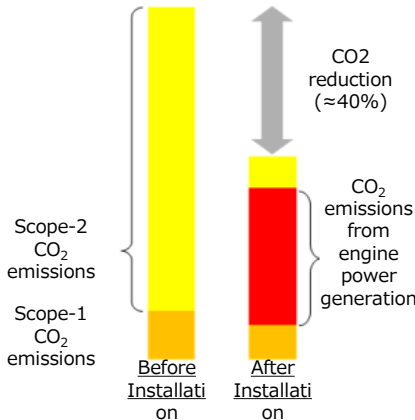
- Utilisation of Waste Heat (Exhaust heat that is disposed of, without utilisation) via Heat Pump
- Compact CO<sub>2</sub> Capture for Exhaust Gas (Melting Furnace, Combustion Furnace, Cement Kiln etc)

#### Scope 2 (Indirect Emissions)

- Independent Power Generation via Gas Engine Power Generator
- For independent power generation, as an alternative fuel for natural gas, bio gas which has a variety of production methods, as well as HVO, can be used. Furthermore, we will propose solutions that give consideration to hydrogen/ammonia as a future green fuel.
- High Efficiency Turbo Chillers
  - Power Generation via Waste Heat, making use of ORC (Organic Rankine Cycle)

### Achievements/Case studies

Our company has provided decarbonization solutions for that meet the varying needs of customers. The diagram on the right is a case study of a CO<sub>2</sub> emission calculation of a customer utilising our engine for power generation, where about 40% reduction was achieved. Besides engines, our company's technology is well established and reliable, and in using these technologies as a base, while taking into consideration ICP<sub>※</sub>, future electric demand growth and solar power implementation of your factory, economic performance improvement, along with CO<sub>2</sub> emission reduction, will be achieved. <sub>※</sub>Internal Carbon Pricing



#### Engine Power Generation/High Efficiency Chillers:

Major Share in Domestic Market. Heat Pump: For small heat pump, major share in domestic market. For large heat pump, a market is being built, with a focus on Europe.

ORC: Several track records from Geothermal Power Generation, Bio Mass Power Generation, Waste Heat from Factory Furnace etc.

Compact CO<sub>2</sub> Capture System: Top Share in the World, and the largest plant in the world was built in America. Multiple units have been delivered domestically and overseas, for verification purposes.



### Company Information

#### Company Name:

Mitsubishi Heavy Industries Ltd.

#### Industry:

Manufacturing  
**Address:** Unit 49-B, Level 49, Vista Tower, The Intermark, 348 Jalan Tun Razak, 50400 Kuala Lumpur, Malaysia

#### Contact Person:

Daisuke Wakasugi

**Phone:** +60 1123525827

#### Email:

[daisuke.wakasugi.md@mhi.com](mailto:daisuke.wakasugi.md@mhi.com)

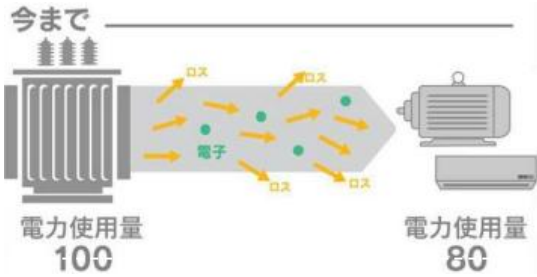
#### Company Website:

<https://www.mhi.com/>

# Next-Generation Power Saving Unit ECOMO

Significant additional savings, even for companies that have already maximized energy efficiency (energy-saving related product).

## Yuasa Mechatronics (M) Sdn.Bhd.



Loss occurs when electric current passes through wires and electronic devices.



The electrons generated from ECOMO and the ferrite noise reduction effect help to smooth the flow of electricity.

### Overview of Products and Services

- Yuasa Trading Co., Ltd. has signed an exclusive distributor agreement with Satsuki Co., Ltd. and Hayabusa Holdings Co., Ltd. to expand sales of the energy-saving product "ecomomo" and has obtained exclusive distributor rights in 10 overseas countries.
- ECOMO is composed of tourmaline, a mineral with properties that generate an electric charge of around 0.06mA, and ferrite, which has a noise reduction effect.
- By simply installing ECOMO on the busbar on the secondary side of the power transformer, it is possible to reduce the overall power consumption of the equipment by 5-15%.
- Before implementation, preliminary data is submitted, followed by a simulation to proceed with the introduction process.

Satsuki Co.,Ltd. Website <https://www.ecomo.info/#>

### Key Points of Decarbonization and Sustainability

- Patent obtained for 'Power Improvement Device'
- By simply installing it on the secondary side of the power transformer, overall equipment power consumption can be reduced by 5-15%. Expected payback period is 3-5 years.
- The lifespan is approximately 15 years. Once installed, it can be used for an extended period.

### Achievements/Case studies

- With over 900 installations primarily in energy management-designated facilities, including major automotive companies and chemical plants.

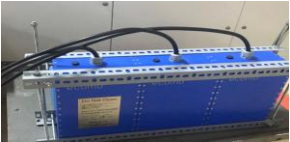
#### FOOD INDUSTRY

Installation date : Sept 2024  
Unit : 1,000KVA



#### AUTO PARTS INDUSTRY

Installation date : Sept 2024  
Unit : 800,750,1000KVA



#### AUTO PARTS INDUSTRY



Installation date :  
Sept 2024  
Unit : 30,50KVA

#### SANITARY PRODUCT INDUSTRY



Installation date : May2024  
Unit : 750KVA



### Company Information

**Company Name :**  
Yuasa Mechatronics (M)  
Sdn.Bhd.

**Industry :**  
Sales Distributor

**Address :**  
No.31, Jalan Kartunis  
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**Contact person :**  
Iida

**Phone:**  
+60-12-2150-244

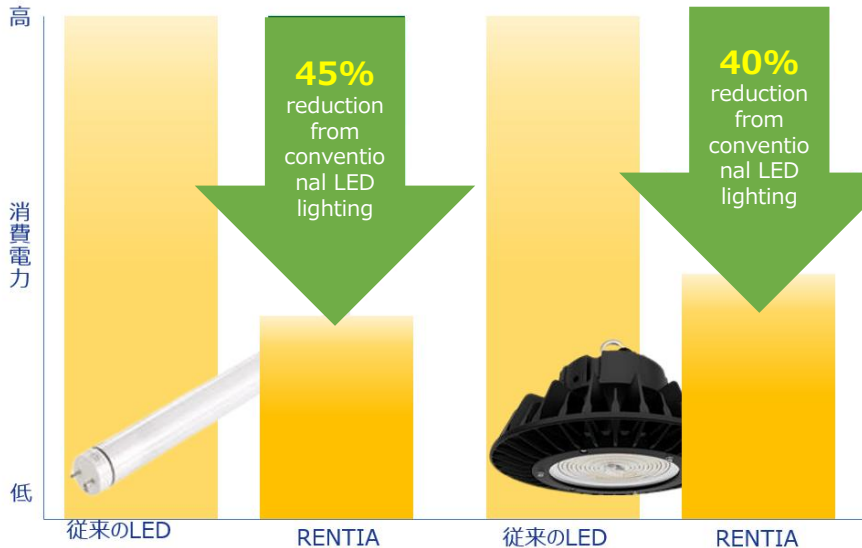
**Email :**  
[2046hi@yuasa.co.jp](mailto:2046hi@yuasa.co.jp)

**Company Website :**  
<http://www.yuasa.co.jp>

Our proprietary LED brand "RENTIA" and the new radiative cooling material "Space Cool".

# Recomm Business Solutions (Malaysia) Sdn.Bhd.

〈Achieving low power consumption and extended lifespan with our proprietary LED brand "RENTIA"!



① By switching from your current LED lighting, you can achieve a **40-45% reduction!!!**

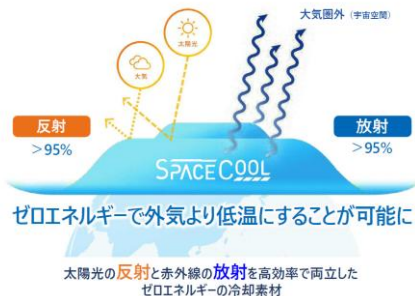
② **5-year** long-term warranty!

③ Designed for longevity, ensuring you can use it with confidence for years to come!

## Achievements/Case studies

### Space Cool

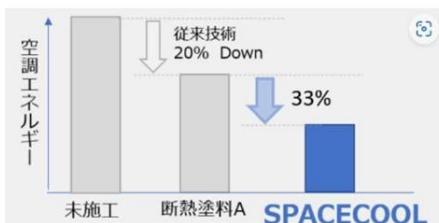
~ Proven Energy Savings with Zero Energy Technology ~  
〈Advantage〉



- ① Highly effective in reducing electricity costs and CO2! Achieve a **15-20% reduction.**
- ② Avoid the risk of equipment failure!
- ③ Designed for longevity, ensuring you can use it with confidence for years to come!



We are expanding our reach across ASEAN countries, with over 100 companies already implementing our solutions! Contributing to our customers' energy-saving and carbon neutrality initiatives!



## Company Information

**Company Name :**  
Recomm Business Solutions (Malaysia) Sdn.Bhd.

**Industry :**  
Manufacturing

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**Company website :**  
<https://www.recomm.co.jp>

## Provision of RPA Solutions

Robotic Process Automation (RPA), commonly referred to as RPA, performs tasks previously assumed to require human intervention or more complex operations, taking over these activities on behalf of humans.

進化型AI-RPAサービス (Robo Worker) ご紹介

プログラミング知識のない方でもシナリオ作りが可能

IT技術者がいなくても簡単にRPA導入が可能

誰でも使えるAI-RPAサービス

- ・専門知識がなくてもシナリオ作成が可能
- ・シナリオ作成時間30%~50%の節約

# Decarbonization and Enhancing Corporate Value for Clients

## LOGISTEED Malaysia Sdn.Bhd.

### Overview of Products and Services

Transportation, storage, distribution, packaging, customs clearance, inspection, and logistics consulting services. Focusing on 3PL services for local retail and distribution businesses. Aiming to meet the growing demand in Malaysia for "fresh, safe, and properly temperature-controlled food logistics," equipped with storage facilities supporting four temperature ranges: frozen, chilled, ambient, and controlled. Accelerating the development of cold chain logistics.

#### [Achieving Decarbonization]

We actively reduce the environmental impact of our operations by introducing energy-efficient equipment. By accurately tracking and visualizing greenhouse gas (CO<sub>2</sub>) emissions and reductions, we develop solutions to support our clients' decarbonization efforts, enhancing corporate value and significantly contributing to CO<sub>2</sub> reduction across their supply chains.



### Key Points of Decarbonization and Sustainability

#### Integration of Solar Power Generation and Battery Storage/LED Implementation

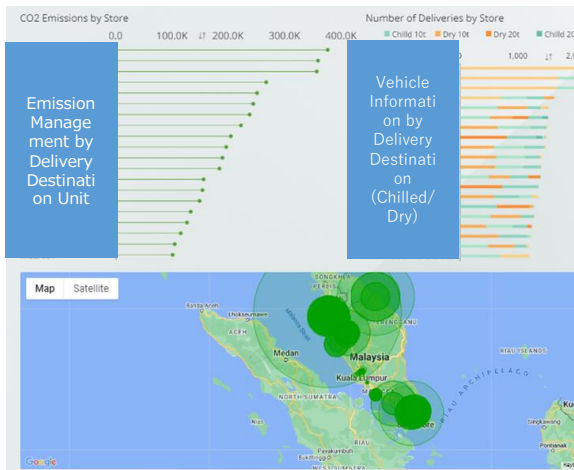
- Solar panels were installed on the rooftop of the headquarters warehouse in Bangi, Selangor (from February 2023). The system integrates solar power generation with battery storage, enabling surplus daytime energy to be stored for use as emergency power during nighttime or outages.
- LED lighting implemented in warehouses and offices.

#### CO<sub>2</sub> Reduction

- Set CO<sub>2</sub> emission targets for the company's 118 trucks.
- Visualized emissions per operation unit (from April 2023).
- Obtained ISO14064 certification (an international standard for monitoring, calculating, and verifying greenhouse gas emissions).



Power Generation Usage Progress Data



CO<sub>2</sub> Emission Data by Delivery Destination



### Company Information

**Company Name :**  
LOGISTEED Malaysia Sdn.Bhd.

**Industry :**  
Logistics  
**Address :**  
Lot3, Jalan 6C/12, Seksyen 16,  
43650  
Bandar Baru Bangi, Selangor  
Darul Ehsan, Malaysia

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Yamagata Koji  
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<https://my.logisteed.com/logisteed-contact-us/>  
**Phone :**  
+603-8913-1000

**Company Website :**  
<https://my.logisteed.com/>

# MVR Evaporator, Vacuum Dryer

## Hakuto Malaysia Sdn. Bhd.

### Overview of Products and Services

- MVR Evaporator (Rock E, Es) and Vacuum Dryer (Rock D) are suitable for treating high concentration waste water
- Rock-E  
It can significantly reduce running costs by heat pump technology, which recompresses moisture (vapor) and reuse it as a heat source.
- ROCK-Es  
A compact version of Rock-E. It does not require boiler steam as a heat source, enabling reduced initial investment costs and simplified operation.
- Rock D  
By reducing the pressure and installing a mixer inside the treatment tank, it is possible to solidify waste liquid
- Target waste is cutting oils, electroless plating, alkaline degreasing, dyeing, rubber vulcanization, etching, etc. (that cannot be treated by conventional wastewater treatment, such as biological and chemical treatment)
- Remote monitoring support is provided.
- Hakuto Group is the sole distributor of Rock Engineering in Malaysia, Singapore,



ROCK E



ROCK Es



ROCK D

### Key Points of Decarbonization and Sustainability

- Reduction of liquid industrial waste and such disposal cost, and CO2 reduction
- Achievement of wastewater recycling and zero liquid discharge (ZLD).
- Reduction of operational load on existing wastewater treatment, and Achievement of stable operation

### Achievements/Case studies

- We have a track record to more than 50 companies in 7 countries, mainly in the ASEAN region, including Thailand, Singapore, Laos, and India.
- In Malaysia, the 1st unit was delivered to a waste collecting company in 2025.



### Company Information

**Company Name:**

Hakuto Malaysia Sdn Bhd

**Industry:**

chemical manufacturer

**Address:**

S-12-07 First Subang, Jalan SS 15/4G 47500 Subang Jaya, Selangor, Malaysia

**Contact Person:** Stephen Foong

**Phone :** +60 3 5635 8910

**Email :**

<https://www.hakuto.com.sg/bb-contact/>

**Company website:**

<https://www.hakuto.com.sg/>

## 2. Renewable Energy

- **Ajinomoto (Malaysia) Berhad**
- **Iwatani Malaysia Sdn.Bhd.**
- **ENEOS Oil & Energy Asia Pte. Ltd.**
- **KYOCERA Propel Network Sdn.Bhd.**
- **JFE Engineering (M) Sdn.Bhd.**
- **Shizen Malaysia Sdn.Bhd.**
- **CHUDENKO Malaysia Sdn.Bhd.**
- **T.T.E. Engineering (M) Sdn.Bhd.**
- **Nippon Koei Co., Ltd. •  
Nippon Koei Energy Solutions Co., Ltd.**
- **BIOTECHWORKS-H2 Co.,Ltd**
- **MSIG Insurance (Malaysia) Bhd**
- **Loop Energy Malaysia Sdn.Bhd.**



## Eco-Conscious Smart Factory

## Ajinomoto (Malaysia) Berhad



## Overview of Products and Services

Ajinomoto (Malaysia) Berhad (Ajinomoto Malaysia) began its operations in 1961 as a producer of "AJI-NO-MOTO®" monosodium glutamate (MSG), and is one of the first Japanese companies established in Malaysia. Currently, the company is engaged in the production and distribution of HALAL-certified seasonings and food products, not only in Malaysia but also in over 35 countries, including the Middle East, in both the B2B and B2C sectors. In December 2022, a new factory was completed under the concept of a "Smart Factory" that achieves high productivity while being environmentally conscious. The factory spans an area of approximately 46 acres (about 188,000 square meters) and incorporates advanced technologies for automation and digitalization, resulting in increased productivity and an improved work environment.

## Key Points of Decarbonization and Sustainability

## Decarbonization:

- Scope: Transition from heavy oil and light oil to liquefied natural gas (LNG).
- Scope 2: Utilization of solar panels, purchase of Renewable Energy Certificates (REC), and use of surplus solar power.
- Scope 3: Encouraging raw material suppliers to adopt sustainable practices.

## Sustainability:

- Achieved GBI (Green Building Index) Gold Grade certification.
- Introduced recyclable plastic packaging.
- Participated in MAREA (Malaysia Recycle Alliance), a collaborative initiative for recycling in Malaysia.

## Achievements/Case studies

Scope1: The fuel used in the factory processes has already been switched to liquefied natural gas (LNG).

Scope 2: 25% of the factory's electricity consumption is covered by solar power. For fiscal year 2024, the plan is to purchase 25% of electricity through \*\*Renewable Energy Certificates (REC)\*\*.

GBI: Achieved CVA Gold Grade certification (as of October 2024).

MAREA: Participating as a \*ain Contributor\* (2024/06)

Eat Well, Live Well.



## Company Information

## Company Name :

Ajinomoto (Malaysia) Berhad

## Industry :

Food Manufacturing

## Factory Address :

Address: No. 1 Persiaran Teknologi 6, Techpark 2@Enstek, 71760, Bandar Enstek, Negeri Sembilan Darul Khusus, Malaysia

## Contact Person :

Higuchi Takafumi

## Email :

[higuchi@ajikl.com.my](mailto:higuchi@ajikl.com.my)

## Company Website :

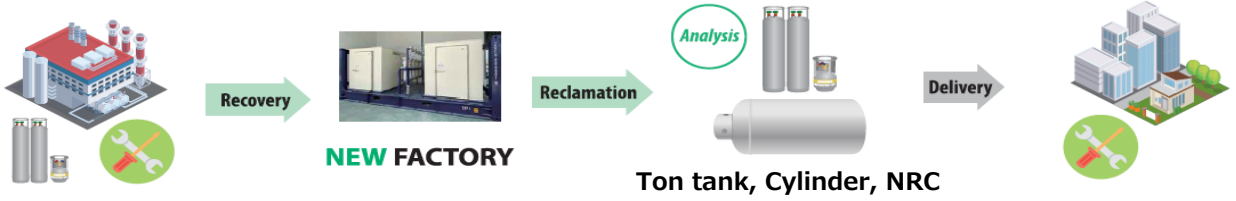
<https://www.ajinomoto.com.my/>

# High-GWP Refrigerant Gas Recovery and Recycling Initiative

## Iwatani Malaysia Sdn.Bhd.

### Recovery & Reclamation Scheme

\*Refrigerant Gas Recovery and Recycling Process Flow



## Overview of Products and Services

- Greenhouse Gas Emissions and Refrigerant Gas Regulations:
- Refrigerant gases, particularly fluorinated gases (F-gases), are significant contributors to global warming. Under the Kigali Amendment to the Montreal Protocol, the production and consumption of these gases are being phased down globally.
- In Malaysia, starting January 2024, the government has implemented regulations limiting the import of refrigerant gases. This is expected to lead to a significant shortage of certain refrigerant gases in the future.
- Iwatani is the only company in Japan that collects used refrigerant gases from the market, recycles them, and restores them to a usable state as new products. This business model supports sustainability by reducing waste and promoting the reuse of valuable gases, contributing to efforts to minimize environmental impact.

## Key Points of Decarbonization and Sustainability

Traditionally, when updating air conditioning systems or car air conditioners, refrigerant gases have been released into the atmosphere. These gases have a Global Warming Potential (GWP) that is hundreds of times greater than that of CO<sub>2</sub>, making their environmental impact significant.

Iwatani's goal is to recover these refrigerant gases and reduce their release into the atmosphere. This initiative is a key factor in achieving a sustainable society, as it directly contributes to lowering greenhouse gas emissions and mitigating climate change.

## Achievements/Case studies

In 2017, Iwatani introduced refrigerant gas regeneration equipment through a JICA demonstration project. Starting in 2024, the company has been collaborating with air conditioning manufacturers to collect and regenerate refrigerant gases from discarded air conditioners.

Iwatani is also working with refrigerant gas retailers to recover residual gases from used refrigerant gas containers.

The refrigerant gases involved in this process include R22, R32, R410A, and R134a.

## Iwatani Iwatani Malaysia Sdn. Bhd.

### Company Information

**Company Name :**  
Iwatani Malaysia Sdn.Bhd.

**Industry :**  
Trading

**Address :**  
Level 26, Menara 3 PETRONAS,  
Persiaran KLCC, Kuala Lumpur  
City Center,  
50088, Kuala Lumpur, Malaysia

**Contact Person :**  
Yoneda Yuki

**Phone :**  
+603-2164-8660

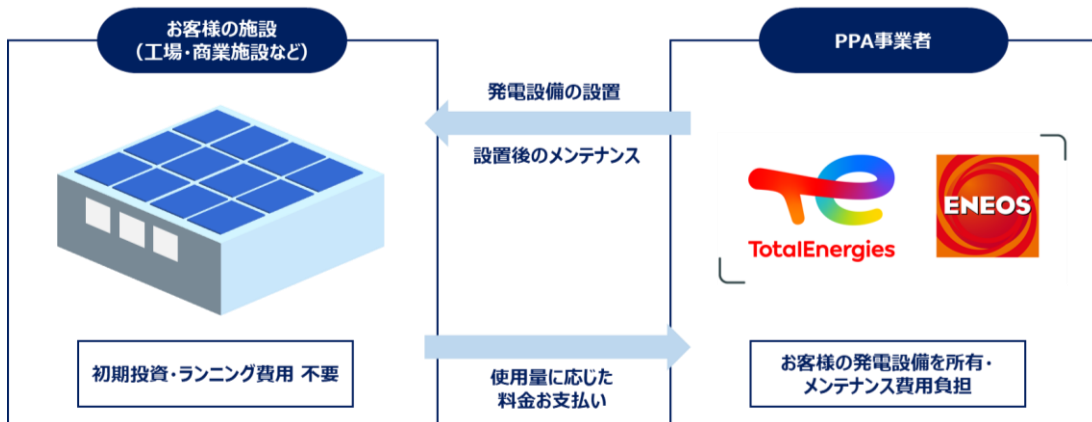
**Email :**  
[y-yoneda@iwatani.co.jp](mailto:y-yoneda@iwatani.co.jp)

**Company Website :**  
<https://www.iwatani.com.my/>



# Corporate Solar Power Self-Consumption Support Program

## ENEOS Oil & Energy Asia Pte. Ltd.



### Overview of Products and Services

- We operate corporate solar power solutions across nine countries in Asia (Malaysia, Japan, Singapore, Thailand, Vietnam, Indonesia, the Philippines, Cambodia, and India).
- Our service involves installing solar power systems on corporate customers' premises or facilities (such as factories or commercial buildings) with zero upfront costs, enabling reductions in electricity costs and the provision of low-carbon energy.

### Key Points of Decarbonization and Sustainability

During the Power Purchase Agreement (PPA) period, a significant reduction in electricity costs can be expected.

By introducing solar power systems, companies can greatly reduce carbon dioxide emissions, showcasing their commitment to environmental sustainability and contribution to the SDGs to both internal and external stakeholders.

### Achievements/Case studies

Through a joint venture between ENEOS and TotalEnergies, we have a solar power capacity exceeding 300 MW across nine countries in Asia, including operational and development projects. in Malaysia

- 1.0 MWp: Paper product factory
- 0.7 MWp: Petroleum product factory
- 0.6 MWp: Food processing factory
- 0.5 MWp: Chemical product factory
- Numerous other installations



#### Company Information

**Company Name :**

ENEOS Oil & Energy Asia Pte. Ltd.

**Industry :**

Mining (metals, nonmetals, oil, gas, coal, etc.)

**Address :**

Temasek Boulevard, #23-01  
Suntec Tower Two, Singapore  
038989

**Contact Person :**

Usunami

**Phone :**

+65-9030-7484

**Email :**

kohei.usunami@eneos.sg

**Company Website :**

<https://solar.totalenergies.asia/>



# Renewable Energy : Solar Power Project Support Program

## KYOCERA Propel Network Sdn.Bhd.



### Overview of Products and Services

Kyocera began researching and developing solar cells in 1975 and started mass production of multicrystalline solar panels in 1982. The company continues to demonstrate the high technology and long-term reliability of its solar cells.

Kyocera Propel Network (KCPN) offers system solutions using Kyocera solar cells:

- KCPN is a specialist in the design, procurement, and construction of public and industrial solar power systems, and has expanded its operations across Southeast Asia.
- The company provides support for solar power projects, ranging from conceptual proposals to construction, operation, and maintenance.

### Key Points of Decarbonization and Sustainability

- Kyocera Group's Renewable Energy Business: Delivering New Value and Clean Energy for the Future
- Leveraging over 40 years of experience, Kyocera began its solar power business in 1975, offering high-quality services rooted in its deep knowledge and expertise.
- The company simulates reduction plans based on corporate CO2 emission reduction targets.
- Kyocera supports sustainability management with detailed, tailored services to help businesses achieve their environmental goals.

### Achievements/Case studies

Solar Power Plant Construction Achievement

- Total in Japan: **1,042 MW**
- (as of April 2024)
- Solar power systems for Japanese companies in Malaysia
- Power supply project for off-grid villages in Myanmar (World Bank funded), totaling 1,538.8 kW, among others.



KYOCERA PROPEL NETWORK SDN. BHD.

**Company Name :**

KYOCERA Propel Network Sdn.Bhd.

**Industry :**

Telecommunications and Environmental Engineering

**Address :**

84-1 & 84-2, Jalan Sungai Burung AA32/AA, Bukit Rimau, Seksyen 32, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia

**Contact Person :**

Takeshi Wakamatsu

**Phone :**

+603 5885 3880

**E-mail :**

[takeshi-wakamatsu@kccs.co.jp](mailto:takeshi-wakamatsu@kccs.co.jp)

**Company Website :**

<https://propelnetwork.com.my/>



# Solar power supply service with no initial investment required

## JFE Engineering (M) Sdn.Bhd.

### Overview of Products and Services

- No Initial Investment Required: Installing Solar Power Systems on Customers' Roofs for Stable Power Supply (Long-term PPA)
- O-ffering a one-stop service for planning, obtaining permits, installation, and maintenance.
- Achieving CO2 reduction while also saving on electricity costs.

### Key Points of Decarbonization and Sustainability

By eliminating the need for initial investment, this solution reduces the economic burden on companies while promoting the spread of clean energy. The service stands out for offering a one-stop solution covering planning, permit acquisition, installation, and maintenance, allowing customers to adopt renewable energy without hassle. This not only contributes to CO2 reduction but also provides economic benefits through electricity cost savings. By reducing environmental impact and supporting companies' sustainability goals, this service is an important solution for building a sustainable society.

### Achievements/Case studies

(Total: 3.3MW)

- Toyochem Specialty Chemical 1.1MW Currently in operation
- SMC Automation 0.6MW Currently in operation
- Kayaku Safety Systems 1.2MW Currently under construction
- Okayasu Rubber 0.4MW Currently under construction



Solar PPA of 1,097 kWp for Toyochem Specialty Chemical Co.



# JFE

### Company Information

**Company Name :**  
JFE Engineering (M) Sdn.Bhd.

**Industry :**  
Construction  
**Address :**  
Suite 9.01 & 9.02, 9th Floor  
Menara JKG, No.282 Jalan Raja  
Laut  
50350 Kuala Lumpur

**Contact Person :**  
Ishibashi Hiroshi  
**Phone :**  
03-2202-7272  
**Email :**  
[ishibashi-hiroshi@jfe-eng.co.jp](mailto:ishibashi-hiroshi@jfe-eng.co.jp)

**Company Website :**  
<https://jfem.com.my/>



## Renewable Energy supply in Malaysia

(Solar off-site PPA and environmental certificate procurement services)

## Shizen Malaysia Sdn.Bhd./ Natural power



## Overview of Products and Services

-Power Purchase Agreement (PPA), Mainly Off-Site PPA\*\*

We contribute to decarbonization by supplying renewable energy-derived electricity generated at our solar power plants, along with related environmental certificates, to corporate clients through PPAs (Power Purchase Agreements). One of our strengths is our ability to consistently support renewable energy procurement across Asia, including in Japan and Malaysia, through a single point of contact.

-Environmental Certificate Services

We assist clients in achieving their decarbonization goals by procuring renewable energy certificates and carbon credits.

## Key Points of Decarbonization and Sustainability

In Malaysia, the government has been enhancing renewable energy procurement schemes for businesses in recent years. Options for off-site PPAs (Power Purchase Agreements), such as the CGPP introduced last year and the CRESS scheme announced in September this year, have been expanding. These new schemes increase flexibility for companies in procuring renewable energy, making them an important factor in achieving decarbonization goals. Companies must consider these schemes in light of policy changes and market developments to make well-informed decisions.

## Achievements/Case studies

## Solar Power Business Achievements in Malaysia:

- Hokuto Malaysia: Rooftop solar power system (0.7 MW)
- Top Glove: Rooftop solar power system (6.1 MW)
- In 2023 CGPP :29.9 MW of ground-mounted solar power was authorized by the government

## Collaboration with State Governments on Solar Development:

- April 2024: MOU signed with Majuperak Holdings Berhad, the investment arm of the Perak State Government, for future solar power development.
- August 2024: MOU signed with Terengganu Inc, a subsidiary of the Terengganu State Government, for collaboration on solar development within the state.

## Off-site PPA Achievements (Japan):

- Microsoft: Off-site PPA for 31 MWp of solar power
- Google: Off-site PPA for 30 MWp of solar power
- Bourbon\*: Off-site PPA for 6.5 MWp of solar power

SHIZEN  
ENERGY

## Company Information

## Company Name :

Shizen Malaysia Sdn.Bhd.  
(Parent Company : Shizen Energy Inc.)

## Industry :

Renewable Energy

## Address :

(Malaysia Office) A-29-06,  
TOWER A, Lorong Utara C, Pjs 52,  
46200 Petaling Jaya, Selangor,  
Malaysia  
(Head Office)1-1-6 Arato, Chuo-  
ku, Fukuoka City, Fukuoka  
Prefecture  
Fukuoka Ohori Building, 3rd Floor

## Contact Person :

Ryohei Shima

## Phone :

+81 80-9208-9150

## Email :

ryohei.shima@shizenenergy.net

## Company Website :

<https://www.shizenenergy.net/>



Providing one-stop services to achieve environmental goals

## CHUDENKO Malaysia Sdn.Bhd.

### Overview of Products and Services

Comprehensive Support for Achieving Clients' Environmental Goals through Integrated Solutions:

- 1.Rooftop solar installations through direct investment
  - 2.Rooftop solar installations through on-site PPA (no upfront investment required)
  - 3.Off-site PPA for renewable energy usage
  - 4.Utilization of renewable energy certificates (REC) for renewable energy sourcing
- Continuous monitoring service by a dedicated maintenance team ensures solar power systems are maintenance-free.
  - Proposals for various energy-saving initiatives.

### Key Points of Decarbonization and Sustainability

The comprehensive approach, combining multiple solutions, is designed to support clients in achieving their environmental goals. Through continuous monitoring services by a specialized team, we ensure maintenance-free solar power systems, promoting efficient use of sustainable energy. This approach provides strong support for clients' CO2 reduction and energy-saving efforts.

### Achievements/Case studies

Through our partnership with local renewable energy engineering company Samaiden Sdn.Bhd., we provide services backed by extensive experience and a proven track record (300 projects / total installed capacity of 900MW).

- Yakult Malaysia Sdn.Bhd.: On-site PPA rooftop solar installation (766.65kW across 2 sites), currently operational.
- CGPP Project (off-site PPA): 43.32MW, recognized by the Malaysian government in 2023.



#### Company Information

**Company Name :**  
CHUDENKO Malaysia Sdn.Bhd.

**Industry :**  
Electrical installation

**Address :**  
Unit A-19-10&11, Level19,  
Tower A, Menara UOA Bangsar,  
No 5, Jalan Bangsar Utama 1,  
59000 Kuala Lumpur

**Contact Person :**  
Nakanishi  
**Phone :**  
0192864225  
**Email :**  
[s.nakanishi@chudenko.com.my](mailto:s.nakanishi@chudenko.com.my)

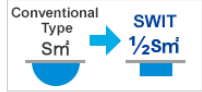
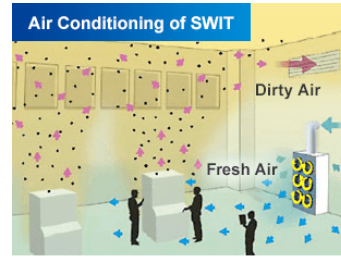
**Company Website :**  
<https://samaiden.com.my/>  
(Partner Company, Samaiden  
Sdn.Bhd., Website)

Swirling Induction type TAKASAGO HVAC System SWIT®  
 Takasago Clean Room Swirling Induction Type TCR-SWIT®  
 Energy Saving Dehumidifier WINDS®Series

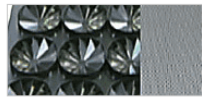
# T.T.E. Engineering (M) Sdn.Bhd. Takasago Thermal Engineering Malaysia subsidiary

## Overview of Products and Services

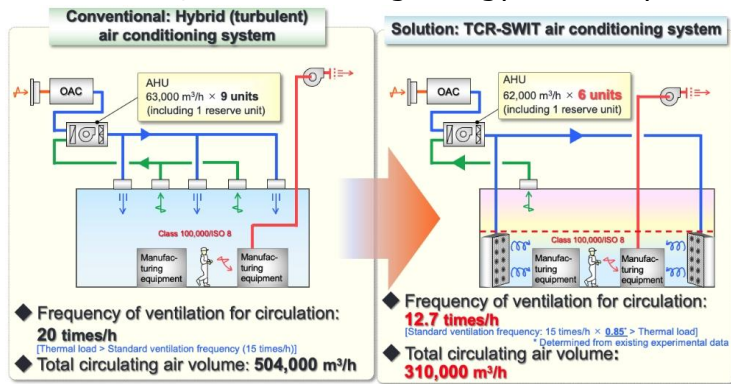
SWIT® is a stratified air conditioning system that advances displacement ventilation technology by leveraging the natural principle where cold air descends and warm air rises, utilizing a vortex-induced flow. TCR-SWIT® applies SWIT® technology to large-scale clean rooms, achieving both indoor environmental control and energy efficiency as a next-generation clean room solution. WINDS® is designed to meet the low dew point requirements of battery manufacturing environments, supplying dry air with dew points ranging from -50°C to -70°C or lower, while ensuring energy efficiency.



The installation area is reduced to 1/2 or less through swirling flow



Thanks to the design of the swirl guide vane arrangement, attraction from the upper part of the air supply unit is reduced, and air conditioning efficiency is improved



**Roughly 40% reduction of circulating air volume from conventional clean rooms with hybrid air conditioning systems!**

## Key Points of Decarbonization and Sustainability

SWIT® and TCR-SWIT® are sustainable air conditioning systems that contribute to improved energy efficiency and reduced CO2 emissions. By maintaining clean environments and utilizing natural airflow for superior ventilation efficiency, these systems reduce transport power requirements and enhance the efficiency of heat source equipment.

WINDS® meets the dual demands of low dew point requirements and energy-efficient, low-CO2 solutions in battery manufacturing environments. This supports optimal resource utilization and the creation of sustainable environments, simultaneously achieving comfort and reduced environmental impact.

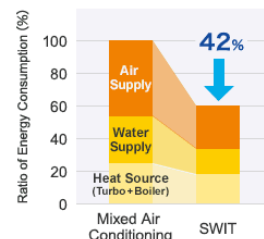
## Achievements/Case studies

The SWIT and TCR-SWIT systems, as well as WINDS, have numerous proven installations across Japan. In Malaysia, the SWIT system has also been successfully implemented.

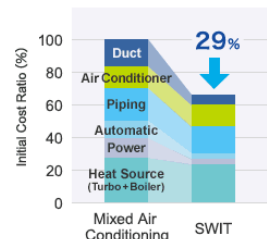
<https://www.tte-net.com/solution/swit.html>

<https://www.tte-net.com/solution/winds.html>

### Annual Energy



### Initial Cost



Calculation example with improvement of indoor environment 100 W/m² with floor area 20000 m² (outside air condition: Tokyo)



## Company Information

### Company Name :

T.T.E. Engineering (M) Sdn.Bhd.  
 (Takasago Thermal Engineering Malaysia Subsidiary.)

### Industry :

General Construction

### Address :

13th Floor, Menara Choy Fook On,  
 No. 1B, Jalan Yong Shook Lin, Pjs  
 7, 46050 Petaling Jaya, Selangor

### Contact Person :

Sato

### Phone :

0124406784

### Email :

[tadashi\\_sato@tte-net.com](mailto:tadashi_sato@tte-net.com)

### Company Website :

<https://www.ttemalaysia.com.my/>

# Smart energy technology demonstration study for green electricity distribution

## Nippon Koei Co., Ltd. · Nippon Koei Energy Solutions Co., Ltd.



\*BESS services provided in Belgium and the UK

### Overview of Products and Services

■ The Malaysian government has set a policy to achieve carbon neutrality by 2050 and increase the renewable energy share to 70% to support this goal.

■ Sabah State and its capital, Kota Kinabalu, are also exploring measures and solutions to align with the trend toward carbon neutrality and decarbonization.

#### Project ①: Large-Scale Solar Power Generation (LSS) + Grid-Scale Battery Energy Storage System (BESS)

Introducing Malaysia's first grid-scale BESS with renewable energy to ensure stable green power supply.

#### Project ②: Development and implementation of a green power supply and demand control (energy-saving) platform for industrial parks.

A model project optimizing green power operations, integrating rooftop solar, BESS, demand control, Energy Management System(EMS), and Electric Vehicles(EV) technology in industrial parks.

### Key Points of Decarbonization and Sustainability

- Building a green power supply system with LSS + BESS to reduce greenhouse gas emissions and achieve a decarbonized society.
- Developing model cases with industrial park tenants to optimize energy use and ensure stable green power supply.
- Promoting green, smart industrial parks to attract eco-conscious businesses and drive economic growth.

### Achievements/Case studies

#### 【Achievements】

- Since the 1970s, we have designed, managed, and constructed hydroelectric power plants and medium- to high-voltage transmission lines in Peninsular Malaysia, Sabah, and Sarawak.
- In Europe, where large-scale grid batteries are being introduced, we developed, constructed (EPC), and operated 75MW/150MWh storage facilities, starting operations in early 2023.

#### 【Case Studies】

- Battery Storage EPC Project in the United Kingdom
- BESS Project in Belgium
- Solar Power, Battery Storage, EMS, and VPP with a Comprehensive Data Platform Survey Project in Vietnam Industrial Parks

**NIPPON KOEI**

**NIPPON KOEI  
ENERGY SOLUTIONS**

#### Company Information

##### Company Name :

Nippon Koei Co., Ltd. ·  
Nippon Koei Energy Solutions Co., Ltd.

##### Industry :

Consultant

##### Address :

5-4 Kojimachi, Chiyoda-ku, Tokyo, Japan

##### Contact Person:

Mr. Kumagishi  
General Manager, International  
Marketing & Promotion Dept.

##### Phone :

03-5276-3596

##### Email :

[int.a@gx.n-koei.co.jp](mailto:int.a@gx.n-koei.co.jp)

##### Company Website :

<https://www.n-koei.co.jp/consulting/english/>

# Hydrogen Production from Waste and Renewable Energy Utilization Scheme

## BIOTECHWORKS-H2 Co.,Ltd

### Overview of Products and Services

#### From Waste to Hydrogen, and from Hydrogen to Renewable Energy: The "Zero Waste Project"

We have developed a pre-treatment technology that enables hydrogen production from hard-to-recycle organic waste—without the need for sorting. By establishing a stable hydrogen production system and a pricing scheme for affordable hydrogen supply, we offer a monetizable solution to challenges in waste management and the transition to a hydrogen-based society. Our system incorporates IoT and AI to ensure full traceability and visualization across the entire process. From waste to renewable energy—with complete visibility every step of the way.

### Key Points of Decarbonization and Sustainability

#### Moving Beyond Incineration and Landfilling—Toward True Zero Emissions

Our solution eliminates the need for incineration or landfilling by introducing a non-combustion waste processing method that reduces CO2 emissions by up to 80% compared to traditional incineration. The hydrogen we generate can be converted into renewable energy through applications such as ammonia synthesis and power generation. In addition, byproducts like CO2 and slag can be recovered and reused, enabling a truly zero-emission process.



### Company Information

**Company Name:**  
BIOTECHWORKS-H2 Co.,Ltd

**Industry:** Service

**Address:**  
6-18-3, Jingumae, Shibuya-ku,  
Tokyo, Japan

**Contact Person:**  
Miki Nitani  
**Phone :**  
+81-8021445760  
**Email :**  
[info@biotechworks.co.jp](mailto:info@biotechworks.co.jp)

**Company website:**  
<https://biotechworks.us/en/>

### Achievements/Case studies

#### Global Expansion of Our Integrated Waste-to-Energy Model

Our U.S. partner has already validated the gasification technology over five years. In 2026, we will launch a PoC plant in Japan, integrating our pre-treatment system with gasification and renewable energy conversion. We're preparing to expand into ASEAN (Malaysia, Indonesia) and the Middle East, offering a one-stop solution for hydrogen and clean energy. With competitive hydrogen costs, future e-fuel conversion is also feasible.



# Insurance products supporting Malaysia's transition to a decarbonized society

## MSIG Insurance (Malaysia) Bhd



### BUILT BACK BETTER

GREEN CLAUSE

Make a commitment towards greener buildings **with MSIG.**

Terms & Conditions apply.  
[www.msig.com.my](http://www.msig.com.my)



## Overview of Products and Services

- ❑ SOLAR PV ALL RISKS (Solar Panel Insurance) / SOLAR PV FOR HOME INSURANCE (Solar Panel Insurance for Residential Use)
  - Compensation for damage or loss of solar panels due to accidental causes (such as fire, breakage, theft, etc.).
  - Compensation also includes loss of savings caused by the accidents above.
  - Optional cover for liability to third parties (e.g., damages caused by falling panels).
- ❑ BUILT BACK BETTER GREEN CLAUSE (An optional add-on to fire insurance)
  - Compensation covers additional costs for eco-friendly improvements to reduce CO2 emissions, during the reinstatement of buildings caused by perils covered by fire insurance.

## Key Points of Decarbonization and Sustainability

- SOLAR PV ALL RISKS covers solar panels itself and loss of savings caused by accidents, supporting the Net Energy Metering (NEM) scheme by the Sustainable Energy Development Authority (SEDA).
  - ✳ A system where the power generated by solar panels, minus self-consumption, allows surplus electricity to be sold to the utility company, e.g. TNB.
- The BUILT BACK BETTER GREEN CLAUSE compensates for additional reinstatement costs of replacing damaged materials with sustainable materials during rebuilding, based on standards set by the Green Building Index (GBI).

## Achievements/Case studies

- ❑ SOLAR PV ALL RISKS (Solar Panel Insurance)
  - Compensation was provided for the loss of savings from electricity sales that would have been earned during the restoration period after solar panels were damaged in a fire accident.
- ❑ BUILT BACK BETTER GREEN CLAUSE (An optional add-on to fire insurance)
  - Additional compensation was provided for the costs of installing solar panels and a water recycling system when reinstating the completely damaged building.



# MSIG

### Company Information

**Company Name :**  
MSIG Insurance (Malaysia) Bhd

**Industry :**  
Finance/Insurance

**Address :**  
Level 15, Menara Hap Seng 2,  
Plaza Hap Seng, No 1. Jalan P  
Ramlee, 50250 Kuala Lumpur

**Contact Person :**  
Ryo Kato  
**Email :**  
[Ryo\\_Kato@my.msig-asia.com](mailto:Ryo_Kato@my.msig-asia.com)

**Company Website :**  
<https://www.msig.com.my>



# Self-consumption type solar power generation/ storage battery system providing solutions

## Loop Energy Malaysia Sdn.Bhd.



Rooftop solar power generation.



Container-type battery storage system



Cabinet-type battery storage system

## Overview of Products and Services

- ❑ Main products and services: Design, construction, and after-sales service for solar power generation and storage battery systems
- ❑ Main proposal scheme
  - Self-investment type (CAPEX): Maximize the effect of reducing electricity bills
  - Power sales type (PPA): Third-party ownership model with no initial costs
- ❑ Target countries: Flexible support mainly in Southeast Asia including Malaysia and the Philippines (For other areas, please consult on a case-by-case basis)

## Key Points of Decarbonization and Sustainability

- ❑ We support our customers' efforts to reduce CO<sup>2</sup> and electricity bills.
- ❑ If you are introducing a system with your own investment, you can also consider taking advantage of tax incentives.
- ❑ For customers with limited roof load capacity, we proactively make proposals using lightweight solar panels.
- ❑ Regarding storage batteries, we can design them to meet the diverse needs of our customers, such as maximizing power generation by combining solar power generation systems, reducing electricity costs, and providing emergency power sources.

## Achievements/Case studies

- ❑ Based on the know-how we have cultivated in Japan since our founding in 2011, we began providing services in Malaysia in 2018.

### Japan

- ❑ Solar power generation business: 350MW or more

### Malaysia/Philippines

- ❑ Panel procurement business: 120MW or more
- ❑ Solar power generation business: 6.8MW
- ❑ Storage battery business: 2.39MWh



### Company Information

#### Company Name :

Loop Energy Malaysia Sdn.Bhd.

#### Industry :

Renewable Energy

#### Address :

Unit 33-13A, Level 33, Q Sentral, 2A, Jalan Stesen Sentral 2, 50470, Kuala Lumpur, Malaysia.

#### Contact Person :

Matsuo Sayumi

#### Phone :

+603-2276-2754

#### Email :

[Info.loop.my](mailto:Info.loop.my)

#### Company Website :

<https://loop.my/>

## 3. Hydrogen

- **IHI Corporation**
- **Sumitomo Corporation**
- **Mitsubishi Heavy Industries Ltd.**

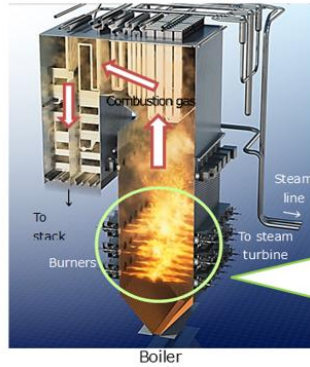


# Coal-fired ammonia/Biomass co-firing

## IHI Corporation

### Overview of Products and Services

- ✓ Conversion of fuel for boilers used in thermal power generation from coal to clean fuels such as ammonia and biomass
- ✓ Not only power plants of electric power companies but also on-site boilers in factories are subject to fuel conversion



### Key Points of Decarbonization and Sustainability

- ✓ Fuel conversion using existing facilities can promote gradual decarbonization with lower initial investment compared to new construction
- ✓ It is important to consider not only the technical aspects of retrofitting existing facilities, but also the commercial aspects of securing fuel and evaluating economic efficiency.

### Achievements/Case studies

- ✓ Ammonia: Demonstration operation of 20% ammonia co-firing has been completed at JERA Hekinan Thermal Power Plant Unit 4 (1000MW).
- ✓ Biomass: We have a lot of experience in co-firing with coal and converting to biomass co-firing, and have experience in co-firing EFB pellets derived from palm waste at coal-fired power plants in Japan and Malaysia.



#### Company Information

**Company Name :**  
IHI Corporation

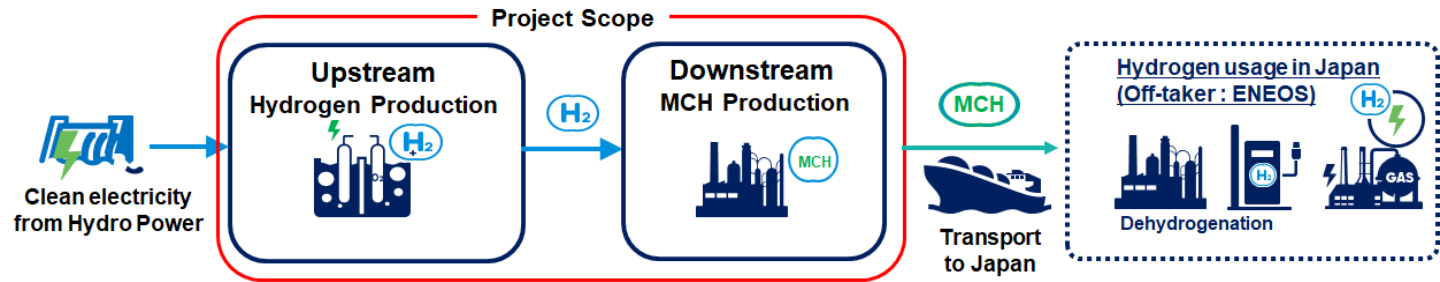
**Address :**  
19<sup>th</sup> Floor, UBN Tower, 10 Jalan P Ramlee, Kuala Lumpur, Malaysia

**Contact Person :**  
Kimura Atsushi  
**Phone :**  
+60-3-2072-1255  
**Email :**  
[kimura8375@ihi-g.com](mailto:kimura8375@ihi-g.com)

**Company Website :**  
<https://www.ihi.co.jp/en/>

# Establishing a Clean Hydrogen Supply Chain

## Sumitomo Corporation



## Overview of Products and Services

Establishing a clean hydrogen supply chain through the development of a clean hydrogen production and export project.

## Key Points of Decarbonization and Sustainability

Hydrogen is an effective decarbonization solution, capable of long-term storage and long-distance transport, usable in high-temperature combustion processes, and able to promote carbon recycling by combining with carbon.

Since hydrogen production capacity and potential demand do not always align, the goal is to establish a global hydrogen supply chain to optimize the supply-demand balance.

## Achievements/Case studies

In December 2023, a joint development agreement was signed among ENEOS Corporation, SEDC Energy Sdn Bhd and Sumitomo Corporation to establish a clean hydrogen supply chain utilizing renewable energy.

This project aims to produce clean hydrogen utilizing renewable energy from hydropower in Sarawak, convert it into methylcyclohexane (MCH), one of the efficient transportation forms, and ship it by sea to demand centers in Japan.

## Company Information

**Company Name :**  
Sumitomo Corporation

**Industry :**  
Trading

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**Company Website :**  
<https://www.sumitomocorp.com/ja/jp>

# Hydrogen Production Technology, Hydrogen and Ammonia Combustion Technology Mitsubishi Heavy Industries, Ltd.

## Hydrogen Production and Hydrogen, Ammonia Power Generation: Product Line-Up



Hydrogen Production Equipment (SOEC)



Hydrogen Firing Gas Turbine



Ammonia Firing Gas Turbine



Ammonia Firing Boiler

### Overview of Products and Services

#### Hydrogen Production

In Mitsubishi Heavy Industries (MHI) Group, we mainly focus on hydrogen utilisation for power generation, and are working on three types of hydrogen production technologies, namely a high pressure, high effectiveness, high capacity SOEC (Solid Oxide Electrolysis Cell), small-scale and low-cost next generation AEM\*1 Electrolyzer, and manufacturing of turquoise hydrogen via methane pyrolysis.

#### Hydrogen, Ammonia Power Generation

Our company also specialises in power generation technologies that make use of hydrogen and ammonia, which are anticipated as the green fuels that do not emit CO<sub>2</sub> during combustion, and developing combustion technologies such as hydrogen co-firing, ammonia/hydrogen single fuel firing combustion and developing an ammonia single firing burner for coal fired boiler, to achieve CO<sub>2</sub> emission reduction in coal fired power generation.

※1 AEM: Anion Exchange Membrane

### Key Points of Decarbonization and Sustainability

MHI Group is advancing the energy transition as a growth engine based on the following 3 initiatives: decarbonize existing infrastructure, build a hydrogen solutions ecosystem, and build a CO<sub>2</sub> solutions ecosystem, based on "MISSION NET ZERO", which declares our aim to achieve carbon neutrality by 2040.

Through the development of technologies that enable fuel conversion to hydrogen and ammonia, we will promote decarbonization of existing thermal power plants, in other words, the "decarbonization of existing infrastructure". On the other hand, hydrogen does not exist in nature, and production costs are high, and additionally there are issues such as the establishment of transportation methods and infrastructure for storage, making it necessary to build a value chain that includes the primary energy supply necessary for production, until transport, storage, and utilisation, in other words, "building a hydrogen ecosystem."

In order to advance the hydrogen and ammonia value chain as a realistic approach, instead of simply providing technologies and products in isolation, it is very important to build a interconnected value chain, and thus MHI Group is actively collaborating with other companies, and participating in cutting-edge projects in various parts of the world, while aiming to build a value chain.

### Achievements/Case studies

As an example of our cutting-edge project initiatives, MHI is participating in the Advanced Clean Energy Storage Project in America, Utah. In this project, green hydrogen, manufactured via the electrolysis of water using renewable energy, is stored in underground salt dome caverns, and supplied to power plants that use hydrogen-fired gas turbines that were deployed by our company. Our company has delivered a 840 MW-class hydrogen-fired gas turbine for this project, which will utilize 30 percent hydrogen fuel at start-up in 2025, with a goal of achieving 100 percent hydrogen by 2045.



### Company Information

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Mitsubishi Heavy Industries Ltd.

**Industry:**  
Manufacturing  
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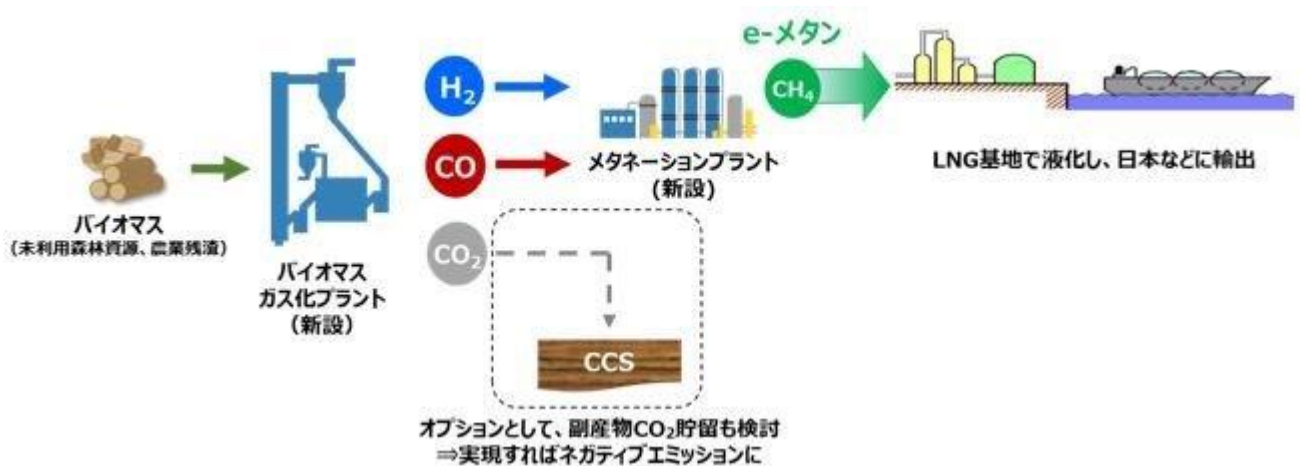
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## 4. Bioenergy

- **Osaka Gas Co., Ltd.**
- **Chitose Laboratory Corp**
- **HANWA (MALAYSIA) Sdn.Bhd.**
- **Marubeni Corporation**

# Biomass-Based e-Methane Production Business

## Osaka Gas Co., Ltd.



### Overview of Products and Services

In April 2023, a Memorandum of Understanding was signed with IHI Corporation and PETRONAS Global Technical Solutions Sdn.Bhd. in Malaysia to initiate detailed studies aimed at deciding on the implementation of the Front-End Engineering Design (FEED) for an e-methane production project utilizing unused forest resources and agricultural residues as biomass.

- Aiming to produce e-methane using biomass as an energy source that is not affected by the price of renewable electricity

### Key Points of Decarbonization and Sustainability

Syngas, which consists mainly of hydrogen, carbon monoxide, and carbon dioxide, is produced by gasifying unused forest resources, agricultural residues, and other biomass at high temperatures. The resulting syngas is then used for methanation to produce e-methane, which is unaffected by the price of renewable electricity.



#### Company Information

**Company Name :**  
Osaka Gas Co., Ltd.

**Industry :**  
Gas/Energy

**Address :**  
4-1-2 Hirano-machi, Chuo-ku, Osaka-shi, Osaka 541-0046, Japan

**Contact ;**  
<https://www.osakagas.co.jp/ssl/form/mailshori/index.html>

**Company Website :**  
<https://www.osakagas.co.jp/>

### Achievements/Case studies

The company aims to liquefy the e-methane produced in 2030 at an LNG terminal owned by Petronas in Malaysia and export it to Japan and other countries. The possibility of negative emissions will also be studied in the future when biomass-derived CO<sub>2</sub> obtained as a by-product is stored in the ground (CCS).

# MATSURI

## Chitose Laboratory Corp



### Overview of Products and Services

MATSURI (MicroAlgae Towards Sustainable and Resilient Industry) is a groundbreaking project led by CHITOSE Group, known for its expertise in large-scale microalgae production powered solely by sunlight. Collaborating with industry, government, and academia, the project aims to establish a new microalgae industry that has never been achieved before. It simultaneously advances the development of bio-based products and the large-scale production of microalgae to promote microalgae-based products that support people's daily lives.

As part of its scale-up efforts, the project is currently developing economically viable and environmentally sustainable microalgae production technologies in Kuching, Sarawak, leveraging abundant sunlight and stable year-round temperatures, under the commission of NEDO (New Energy and Industrial Technology Development Organization).

### Key Points for Decarbonisation and Sustainability

Decarbonization requires transitioning from a fossil resource-dependent world to a bio-based era that enables energy and material circulation driven by sunlight.

Microalgae absorb CO<sub>2</sub> and produce various organic compounds like proteins, lipids, and carbohydrates using solar energy. They require minimal water and no soil, making them an environmentally low-impact resource.

This project aims to develop a sustainable society by utilizing microalgae biomass, produced on a large and stable scale, as raw material for diverse applications such as chemicals, cosmetics, fuels, animal feed, and food products.

### Achievements / Case Studies

As part of a NEDO-commissioned project※1, the world's largest microalgae production facility※2, the 5-hectare "CHITOSE Carbon Capture Central (C4)," has been constructed in an industrial park in Kuching, Sarawak, to demonstrate large-scale, stable microalgae production. Additionally, a 100-hectare facility※3 is under construction in the same region, scheduled to begin operations in 2027. Looking ahead to commercialization, production will scale up to 2,000 hectares, enabling an annual supply of 140,000 tons (dry weight) of algae biomass at a cost below ¥300/kg for use as raw material in various products.

※1 Development of Production Technologies for Biojet Fuel Project.

[https://www.nedo.go.jp/english/activities/activities\\_ZZJP\\_100127.html](https://www.nedo.go.jp/english/activities/activities_ZZJP_100127.html)

※2 Scalable flat-panel type photobioreactor system suitable for the efficient production of microalgal biomass.

※3 Green Innovation Fund Project, adopted by NEDO

<https://green-innovation.nedo.go.jp/en/project/bio-manufacturing-technology/>



### Company Information

**Company Name :**  
Chitose Laboratory Corp

**Industry :**  
Biotechnology-related services

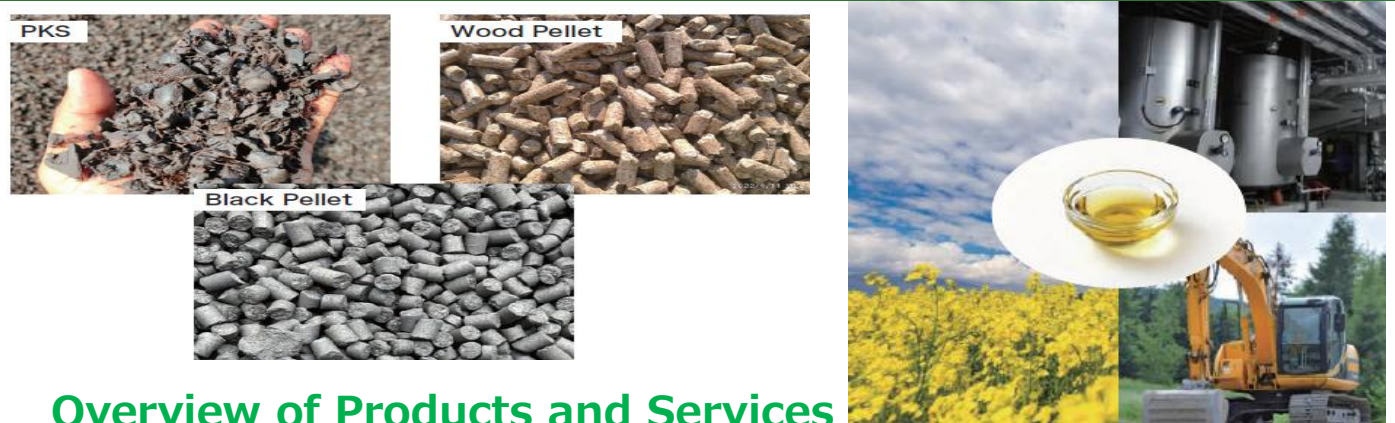
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# Consulting of decarbonization and Supply of biofuels

## HANWA (MALAYSIA) Sdn.Bhd.



### Overview of Products and Services

We procure PKS (a by-product of palm oil extraction) from Southeast Asia and wood pellets (fuel made by compressing sawdust) from around the world, boasting the largest handling volume in Asia, around 2 million tons annually. Through upstream investments in Indonesia, long-term charter contracts, and our own warehouse, we ensure a stable supply of these biomass fuels. Additionally, to meet our customers' decarbonization needs in transportation, we also sell biofuels (biodiesel) for trucks and ships, as well as the raw materials for these fuels.

### Key Points of Decarbonization and Sustainability

As a means of decarbonization in the power generation and shipping industries, new fuels such as hydrogen and ammonia are expected in the medium to long term. However, due to the significant investments and technological developments required, we are currently supplying biofuels that can be used directly in existing equipment as immediate decarbonization fuels. Biofuels are considered carbon-neutral because the plants used as raw materials absorb CO<sub>2</sub> from the atmosphere during their growth process, offsetting the CO<sub>2</sub> emitted during combustion.

To contribute to the stable supply of energy, we have also invested in a wood pellet factory with plantation in Indonesia. The plantation area is 27,000 hectares, and we plant trees every year. Each tree absorbs 25 kg of CO<sub>2</sub> annually. Since the project began, we have planted approximately 9 million trees. In the first phase, we plan to plant 45 million trees.

### Achievements/Case studies

Confidential



#### Company Information

**Company Name :**  
HANWA (MALAYSIA) Sdn.Bhd.

**Industry :**  
Trading

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**Company Website :**  
<https://www.hanwa.co.jp/en/>

# Malaysia/Biomass-Based SAF Production Project

## Marubeni Corporation



### Overview of Products and Services

- MOU signed (May 15, 2024) to conduct a feasibility study (Pre-FS) in Sarawak, Malaysia, on the production of aviation fuel (SAF) using the abundant forest residues and other biomass resources available in the area.
- The MOU will be signed on May 15, 2024, to conduct a pre-FS study on the feasibility of SAF production using biomass resources.
- This project aims to produce SAF using resources that were previously disposed of, and will contribute to the global decarbonization of Malaysia and the development of the state of Sarawak.

### Key Points of Decarbonization and Sustainability

The project will promote the production of carbon-neutral aircraft fuel through the effective use of discarded biomass resources. In cooperation with local companies, the project will also contribute to the sustainable development of Malaysia through the efficient use of resources and the revitalization of the local economy. Furthermore, the project will contribute to global decarbonization, environmental conservation, and the creation of a resource-recycling society.

### Achievements/Case studies

Pre FS (investigation of raw materials, adopted technologies, economic feasibility, etc.) will be conducted during FY2024 to determine the feasibility of the project.



#### Company Information

**Company Name :**  
Marubeni Corporation

**Industry :**  
Trading

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**Company Website :**  
<https://www.marubeni.com/jp/>

## 5. Green Mobility

- **SANDEN AIR CONDITIONING(M) Sdn.Bhd.**
- **All Nippon Airways Co., Ltd.**
- **Nippon Koei Co., Ltd.**
- **BERJAYA SOMPO INSURANCE Berhad**
- **Euglena Co., Ltd**



# Car Air Conditioning System Solutions for Automotive Decarbonization

## SANDEN AIR CONDITIONING(M) Sdn.Bhd.



Electric compressor



Electric coolant heater  
(For EVs and Hybrids)



Thermal management system



Thin and lightweight heat exchanger

### Overview of Products and Services

Development, manufacturing, and sales of automotive air conditioning systems and components. -In order to accelerate the decarbonization of automobiles, including electrification (EV), we will provide solutions to the automobile industry through car air conditioning systems.

-To accelerate the decarbonization (EV) of automobiles, we will provide ITMS (Integrated Thermal Management System) and high-efficiency EC (Electric Compressor)/ECH (Electric Coolant Heater) that contribute to extending cruising range.

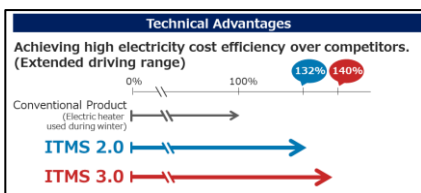
The industry's thinnest lightweight heat exchanger (evaporator/condenser) contributes to improving automobile fuel efficiency and electricity consumption.

### Key Points of Decarbonization and Sustainability

1. Accelerating the trend toward EVs by providing solutions to car air conditioner issues as vehicles become EVs
2. Contributing to improving vehicle fuel efficiency and electricity consumption and reducing CO2 emissions by making parts smaller and lighter.

### Achievements/Case studies

**Integrated thermal management system(ITMS) for electric vehicles.**  
**Increase cruising range by up to 140% succeeded in improving**



**Aluminum material reduction of 26 tons per year in heat exchangers with the same size and heat dissipation performance**

By making parts smaller and lighter, it reduces fuel consumption and CO2 emissions of automobiles, and improves electricity costs and cruising range of EVs. In addition, the production of aluminum materials consumes so much electricity that it is called "canned electricity," and 15,000 kWh of electricity is required to produce 1 ton of aluminum. Therefore, reducing the amount of aluminum used can directly reduce electricity consumption. The amount was reduced.



### Company Information

**Company name :**  
 SANDEN AIR CONDITIONING (M) Sdn.Bhd.

**Industry :**  
 Automotive parts manufacturing and sales  
**Address :**  
 No.16, Jalan Pemaju U1/15, Seksyen U1, HICOM Glenmarie Industrial Park, 40150 Shah Alam

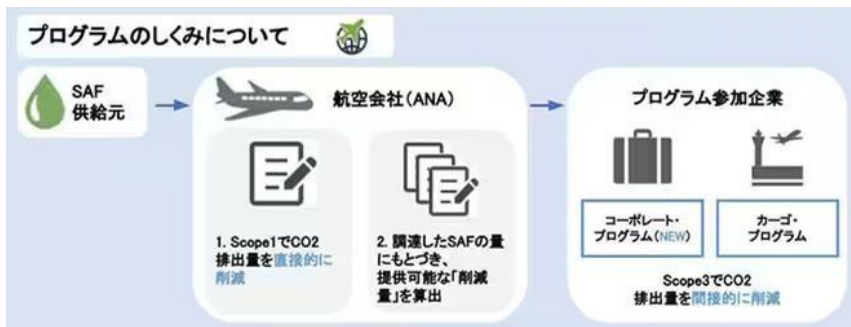
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# Reducing CO<sub>2</sub> Emissions in Air Transportation Through the Use of Sustainable Aviation Fuel (SAF)

## All Nippon Airways Co., Ltd.



## Overview of Products and Services

ANA launched the "SAF Flight Initiative" in 2021, the first program of its kind in Asia, aiming to reduce CO<sub>2</sub> emissions in air transportation through the use of sustainable aviation fuel (SAF) and to contribute to cross-industry CO<sub>2</sub> reduction in collaboration with participating companies.

Participating companies can receive certificates verified by third-party organizations to ensure transparency. These certificates can be used to reduce CO<sub>2</sub> emissions in the value chain under GHG Protocol Scope 3 and for calculating disclosure data.

We offer two types of programs:

- ① A corporate program for companies working to reduce CO<sub>2</sub> emissions during employee business trips.
- ② A cargo program for companies aiming to reduce CO<sub>2</sub> emissions in freight transportation and delivery.

## Key Points of Decarbonization and Sustainability

1. By procuring SAF, ANA achieves direct emissions reductions in its core operations under Scope 1.
2. Participating companies in the SAF Flight Initiative can achieve indirect CO<sub>2</sub> reductions under Scope 3, Category 4 (freight transportation) and Category 6 (business travel). The reduction figures can be used for stakeholder disclosures, as well as for corporate symbol usage.

## Achievements/Case studies

Kyocera Corporation has joined as the first shipper company, contributing to the reduction of CO<sub>2</sub> emissions across the entire value chain and supporting the achievement of its long-term environmental goal of carbon neutrality by 2050.

This participation was made possible through the cooperation of Kyocera's freight forwarding partners, Nippon Express Co., Ltd. and Kintetsu World Express, Inc. Many other corporate customers are also utilizing this initiative.



※The SAF Flight Initiative received the "2022 Nikkei Superior Products and Services Award" organized by Nikkei Inc.



### Company Information

#### Company Name :

All Nippon Airways Co., Ltd.

#### Industry :

Air transportation

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Kusakabe

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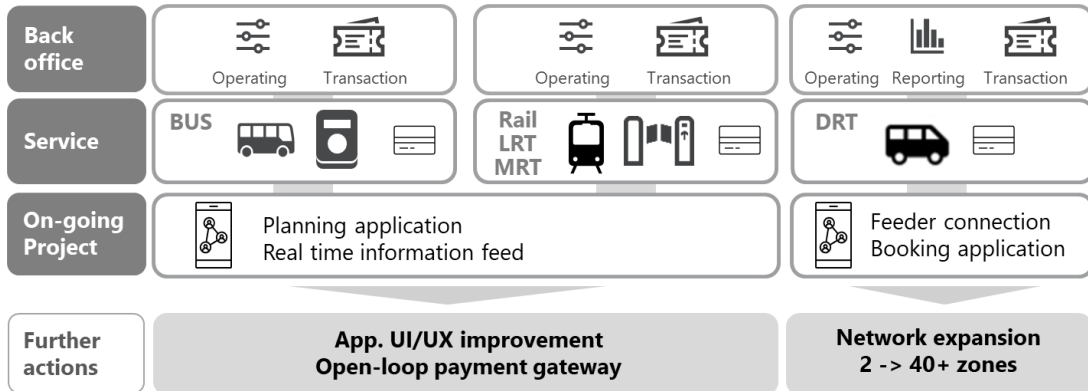
#### Company Website :

<https://www.ana.co.jp/ja/my/>



# A MaaS demonstration project integrating terminal transportation and public transportation in Kuala Lumpur

## Nippon Koei Co., Ltd.



\*Organizing requirements for a data integration platform (MaaS platform) to support public transport integration in Kuala Lumpur.

### Overview of Products and Services

- In Kuala Lumpur, Malaysia, car dependency and urbanization worsen traffic congestion, hindering growth and daily life.
- Prasarana Malaysia Berhad, operating LRT, MRT, monorails, and buses, is enhancing public transport by expanding payment options, testing on-demand services, and improving UI/UX.
- This project aims to improve convenience through public transport integration, evaluate on-demand transport, and explore MaaS platform requirements.

### Key Points of Decarbonization and Sustainability

#### Decarbonization

- Improving the convenience of public transportation and reducing car usage.
- Reducing exhaust emissions and contributing to combating global warming by lowering car usage.

#### Traffic congestion alleviation

- Utilizing information and communication technology and big data to propose seamless mobility solutions, leading to reduced traffic congestion.

#### Regional revitalization

- Creating opportunities for outings through the provision of seamless mobility solutions.

### Achievements/Case studies

#### 【Achievements】

#### Extensive Experience with Municipalities and Government Agencies

We develop and implement MaaS-based projects to optimize urban development and transport while reducing environmental impact.

#### 【Case study】

- MaaS Payment Information Utilization Demonstration in Indonesia
- MaaS Demonstration for Large-Scale Private Sector Area Development in Vietnam
- Tourism-Oriented MaaS Demonstration in Siem Reap, Cambodia



### Company Information

#### **Company Name :**

Nippon Koei Co., Ltd.

#### **Industry :**

Comprehensive Consultant

#### **Address :**

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#### **Phone :**

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#### **Email :**

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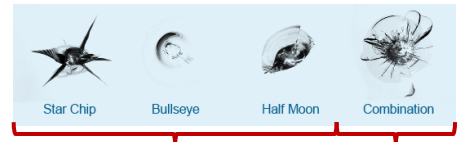
#### **Corporate website :**

<https://www.n-koei.co.jp/consulting/english/>



# Windscreen Repair Recommendation for Automotive Windshield Repair

## BERJAYA SOMPO INSURANCE



Repairable

Replacement

### Authorised Panel Workshops

Windscreen Repairs and Replacement Centres

Kuala Lumpur

Select Area



### Overview of Products and Services Recommendation for Environmentally Friendly Windshield Repair

Recommendation for Repairing Windshields Damaged in Auto Accidents

### Key Points of Decarbonization and Sustainability

We promote windshield repair over replacement in auto accidents to reduce waste, support decarbonization efforts, and contribute to a sustainable society, aiming to minimize environmental impact and enhance sustainability awareness.

### Achievements/Case studies

- Fiscal Year 2023: 113 cases
- As of the end of September 2024: 71 cases



BERJAYA SOMPO INSURANCE

### Company Information

**Company Name :** BERJAYA SOMPO INSURANCE Berhad

**Industry :** Non-Life Insurance Business

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**Company Website :** <https://www.berjayasompo.com.my/>



## SUSTEO (Biofuel)

## Euglena Co., Ltd.

## Overview of Products and Services

- The commercial plant in Pengerang, Johor, Malaysia started construction in 2025, with operations expected to commence in the second half of 2028.
- The plant will produce SAF for aviation use and HVO used in ground and maritime transportation, with a flexible configuration to maximize production volumes.
- Feedstocks will include used cooking oil, animal fats, waste generated from vegetable oil processing, and, in the medium term, algal oil derived from microalgae and other biomass materials.
- The plant will have a feedstock processing capacity of 650,000 tons per year. Based on the investment ratio, up to maximum 100,000 kiloliters per year of product is planned to be supplied to Japan.

## Key Points of Decarbonization and Sustainability

- 1. Environmental Value:** SAF and HVO are Carbon Neutral (CN) fuels because they are produced from renewable feedstocks such as used cooking oil, allowing CO<sub>2</sub> emissions during combustion to be considered effectively zero
- 2. Liquid Fuel Characteristics:** As biofuels with properties equivalent to diesel, SAF and HVO offer comparable energy content per unit, making them suitable substitutes for conventional fossil fuels
- 3. Drop-in Compatibility:** These fuels can be introduced immediately without modifications, as they are compatible with existing infrastructure (transportation, storage, and refueling systems) and do not require any changes to vehicles or equipment.

## Achievements/Case studies

With a proven track record of supplying biofuels to over 100 companies, we are recognized as a pioneer in the field.

**Land Transportation:** Shuttle buses, construction machinery, trucks, passenger vehicles

**Marine Transportation:** From small vessels such as *yakatabune* (traditional Japanese pleasure boats) to large ferries

**Aviation:** Government aircraft and fighter jets of the Japan Air Self-Defense Force

Toward the completion of our commercial plant in Malaysia, we will strengthen partnerships and collaboration to expand the SAF and HVO markets both domestically and internationally, and to build a robust supply chain.



## Company Information

**Company Name:**  
Euglena Co., Ltd.

**Industry:** Biofuels, Health Foods, Cosmetics, Sustainable Agritech

**Address:**  
G-BASE Tamachi 2F, 5-29-11, Shiba, Minato-ku, Tokyo 108-0014, Japan

**Contact Person:**  
Biofuels Business Department

**Phone :** 03-3453-4907

**Email :**  
ml\_biofuels\_sales@euglena.jp

**Company website:**  
<https://www.euglena.jp/en/businessrd/energy/>

## 6 . CCUS / CCS

- **IHI Corporation**
- **Asuene APAC Pte. Ltd.**
- **Kawasaki Kisen Kaisha, Ltd.**
- **GREEN CARBON Co., Ltd.**
- **Mitsui & Co., Ltd.**
- **Mitsubishi Heavy Industries, Ltd.**
- **Archeda Inc.**

# CO2 Capture and Methanation

## IHI Corporation



CO2 Capture Equipment



Methanation Equipment

### Overview of Products and Services

- ✓ Separation and recovery of carbon dioxide from exhaust gases from factories and power plants (CO2 recovery), and synthesis with hydrogen to produce methane, the main raw material for city gas (methanation)
- ✓ Possible to provide an integrated package from CO2 capture to methanation, including hydrogen production
- ✓ In-house service for visualization of CO2 reductions using blockchain technology is also available.
- ✓ Possible to provide not only individual design of both facilities, but also small-capacity standard equipment

### Key Points of Decarbonization and Sustainability

- ✓ Establish uses for recovered CO2 by producing methane, a valuable resource, as a raw material from recovered CO2.
- ✓ By producing methane, the main raw material for city gas, it can be used as fuel at existing facilities in the plant and existing infrastructure such as gas pipes.

### Achievements/Case studies

- ✓ Proven track record in supplying Japanese gas companies and manufacturers



#### Company Information

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IHI Corporation

**Industry :**  
Heavy industry

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**Company website :**  
<https://www.ihi.co.jp/en/>



# Asuene – Cloud Service for CO2 Emissions Visualization, Reduction, and Reporting

## Asuene APAC Pte. Ltd.



### Overview of Products and Services

- A cloud-based platform for CO2 visualization, reduction, and reporting, integrated with SX consulting, AI-OCR, and ISO14064-3 certification, automates the calculation of Scope 1-3 greenhouse gas emissions.
- Leveraging extensive experience, it supports international initiatives (TCFD, SBTi, CSRD), boundary setting, and calculation.
- Provides a one-stop CO2 reduction solution by implementing optimal methods such as renewable energy, energy-saving suppliers, and carbon offsets.

### Key Points for Decarbonisation and Sustainability

Provides a cloud platform that automatically collects and calculates Scope 1-3 greenhouse gas emissions. Supports calculation and reporting aligned with international standards like TCFD, SBTi, and CSRD. Enables optimal CO2 reduction strategies through renewable energy, energy-efficient technologies, and carbon offsets. With extensive experience, offers a one-stop solution from calculation to reduction and reporting, contributing to decarbonization and sustainability efforts.

### Achievements / Case Studies

- Kanematsu Corporation  
Developed logic for data collection and input, reducing and optimizing workload.  
Achieved rapid progress, starting Scope 3 calculations within two months of implementation.
- OPTEx Group Co., Ltd.  
Took the first step in visualizing CO2 emissions as a group.  
As a global niche top company, we have communicated our commitment to decarbonization and product excellence both internally and externally, successfully advancing CDP disclosure efforts.
- UCC Japan Ltd.  
Centralized management of Scope 3 data across domestic and international operations.  
Enabled smooth data input and calculation from overseas sites with multilingual support.

### Company Information

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Asuene APAC Pte. Ltd.

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**Email :**  
<https://earthene.com/asuzero/en/form/contact>

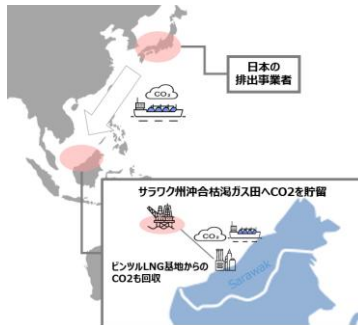
**Company Website :**  
<https://earthene.com/>

# LNG Transportation and CCS Value Chain Development for Low-Carbon and Decarbonization Goals

## Kawasaki Kisen Kaisha, Ltd.



79,960m<sup>3</sup>(Membrane-Type) LNG Carrier *LAGENDA SETIA*



CCS Value Chain Development Between Japan and Malaysia

## Overview of Products and Services

### ■ LNG Transportation Business

Leveraging 41 years of safe operation expertise and a strong network, we provide LNG transportation services, contributing to the stable supply of energy. (\*In 1983, we launched Japan's first LNG carrier, Bishu Maru.)

### ■ CCS Business

We participate in CCS (Carbon dioxide Capture and Storage) projects involving advanced liquefied CO<sub>2</sub> maritime transport, contributing to a sustainable society by supporting low-carbon and decarbonization efforts.

## Key Points of Decarbonization and Sustainability

Our group is advancing various initiatives for low-carbon and decarbonization efforts for both our company and society, guided by the "K" LINE Environmental Vision 2050.

In Malaysia, we support sustainable low-carbon and decarbonization efforts for client companies through our LNG transportation and CCS businesses.

## Achievements/Case studies

### ■ LNG Transportation for Petronas

In February 2020, we signed a long-term charter contract with Malaysia's PETRONAS Group.

Three newly built LNG carriers—LAGENDA SURIA, LAGENDA SERENITY, and LAGENDA SETIA—are deployed for transporting LNG from Bintulu Port, Sarawak, to overseas destinations.

### ■ Sarawak Offshore CCS Value Chain Development

In September 2023, we signed a basic agreement with JAPEX, JGC Group, and PETRONAS Group to study the commercialization of a CCS value chain offshore Sarawak, aiming for the early realization of CCS operations.

This project has been selected as part of JOGMEC's "Advanced CCS Projects."



### Company Information

#### Company Name :

Kawasaki Kisen Kaisha, Ltd.

#### Industry :

Transportation

#### Address :

2-1-1 Uchisaiwaicho, Chiyoda-ku, Tokyo, Japan

#### Contact Person :

Nibu Yuri

#### Phone :

03-3525-5522

#### Email :

[nibu.yuri@jp.kline.com](mailto:nibu.yuri@jp.kline.com);

[kljtyoccs@jp.kline.com](mailto:kljtyoccs@jp.kline.com)

#### Company Website :

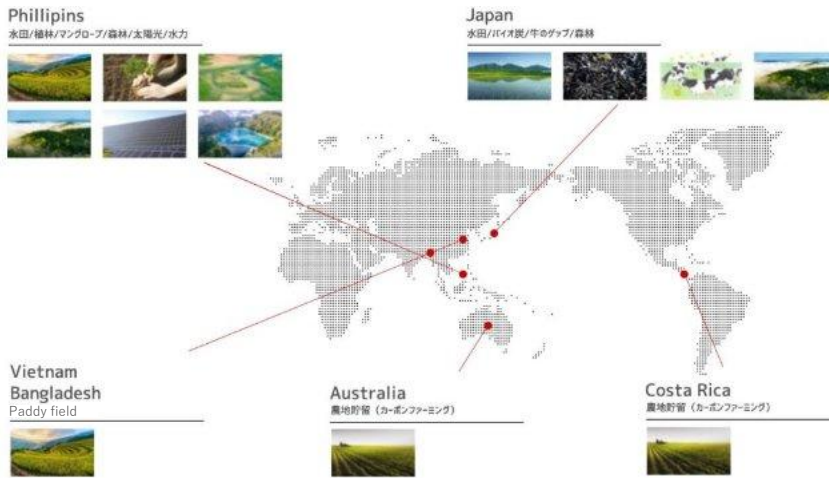
<https://www.kline.co.jp/ja/index.html>

# Mitigating climate change and increasing farmers' income "Agricultural carbon credit creation project"

## GREEN CARBON Co., Ltd.

### Overview of Products and Services

- Carbon credit creation project generation and consulting business
- Research and development project for plants that absorb a large amount of carbon dioxide  
The company conducts research and development centered on genome editing aimed at accelerating the growth rate of plants and improving carbon dioxide absorption.
- Carbon credit buying and selling business
- ESG consulting business



### Key Points of Decarbonization and Sustainability

Our company is engaged in carbon credit generation project generation and consulting business. In particular, we are focusing on research and development of plants that absorb a large amount of carbon dioxide, using genome editing technology to accelerate the growth rate of plants and improve their ability to absorb CO<sub>2</sub>. We also support sustainable management by promoting market transactions through the carbon credit buying and selling business, and by developing ESG consulting services for companies. Through these efforts, we aim to achieve both environmental protection and economic growth.

### Achievements/Case studies

#### Carbon credit creation project

Carbon credit generation projects are already underway in Japan, the Philippines, Vietnam, Bangladesh, Australia, and Costa Rica using methods such as rice paddies (AWD), farmland storage, forest and mangrove plantations, biochar, and cow burp control.



### Company Information

**Company Name:**  
GREEN CARBON Co., Ltd.

**Address:**  
107-0052  
IsaI AKASAKA, 5-2-33  
Akasaka, Minato-ku, Tokyo

**Contact Person:**  
Seno  
**Email:**  
[t.senoo@green-carbon.inc](mailto:t.senoo@green-carbon.inc)

**Company website:**  
<https://green-carbon.co.jp/>



# Southern Offshore Peninsular Malaysia CCS

## Mitsui & Co., Ltd.

### Overview of Products and Services

The Southern Offshore Peninsular Malaysia CCS project involves capturing CO<sub>2</sub> from diverse industrial emission sources across Western Japan, liquefying it, transporting it via liquefied CO<sub>2</sub> carriers, and storing it in depleted gas field offshore Peninsular Malaysia.

Mitsui & Co., Ltd. ("Mitsui"), PETRONAS CCS Solutions Sdn.Bhd., a subsidiary of Malaysia's national oil company PETRONAS, and TotalEnergies Carbon Neutrality Ventures, a subsidiary of the French integrated energy company TotalEnergies, commenced joint development of the CO<sub>2</sub> storage site.

Mitsui, together with The Kansai Electric Power Co., Inc., Kyushu Electric Power Co., Inc., Cosmo Oil Co., Ltd., The Chugoku Electric Power Co., Inc., Electric Power Development Co., Ltd., Resonac Corporation, and Mitsubishi UBE Cement Corporation, applied for and was selected under the Japan Organization for Metals and Energy Security's (JOGMEC) FY2024 bid for Advanced CCS Project. The consortium is now engaged in conducting the engineering design work for the CCS project in Southern Offshore Peninsular Malaysia.

### Key Points of Decarbonization and Sustainability

Mitsui will actively use its knowledge of energy value chain development, including the development of energy resources, and its extensive business networks, to drive progress on this development project with the aim of achieving an early startup of the CCS business. Mitsui will continue to contribute to the creation of an eco-friendly society by providing CO<sub>2</sub> reduction solutions through our global CCS business.

### Achievements/Case studies

- Japan: Participation in large-scale Tomakomai CCS demonstration through Mitsui Oil Exploration.
- UK: Development of the Acorn CCS project via Storegga.
- Australia: CO<sub>2</sub> injection tests and feasibility studies for commercializing the Waitsia Blue Ammonia Project; development of the Cygnus CCS Hub Project.
- Australia: Development of the Angel CCS Project.
- Indonesia: Development of Tangguh LNG CCS (EGR) project.
- USA: Development of the Hackberry CCS Project.
- USA: Development of the Corpus Christi Project.
- Malaysia: Feasibility study (FS) on CCS value chain development, focusing on storage site surveys with PETRONAS.
- Indonesia: FS on CCS value chain development, focusing on storage site surveys with Pertamina
- FS with Shell on the establishment of a CCS value chain centered on a survey of suitable storage sites in Asia and the Pacific, including Japan



### Company Information

**Company Name :**  
Mitsui & Co., Ltd.

**Industry :**  
Wholesale Business

**Address :**  
1-2-1 Otemachi, Chiyoda-ku,  
Tokyo 100-8631, Japan

**Company Website :**  
<https://www.mitsui.com>

# Initiatives for CCUS/CCS Value Chain by MHI

## Mitsubishi Heavy Industries, Ltd.



### Overview of Products and Services

Mitsubishi Heavy Industries (MHI) Group has set its sights on the optimisation of the entire CCUS value chain, from CO<sub>2</sub> capture to transportation, conversion, and storage, and provides an effective solution for the effective and stable reduction of CO<sub>2</sub>.

In addition, in order to build a CCUS value chain, we are expanding our lineup of products related to CCUS, including cutting-edge CO<sub>2</sub> capture technology, compact CO<sub>2</sub> capture systems, LCO<sub>2</sub> carriers, and compressors, as well as developing CO2NEX™, a digital platform for visualizing the CCUS value chain, to make use of CO<sub>2</sub> as a valuable resource.

### Regarding Decarbonisation and Sustainability

One of the key technologies that make up the CCUS value chain is CO<sub>2</sub> capture technology. MHI, in collaboration with The Kansai Electric Power Co., Inc., has continued to conduct R & D on CO<sub>2</sub> capture technology from flue gas using a chemical absorption method, for more than 30 years. The KM CDR Process™, which is the result of these efforts, is a product that commands the world's top market share for commercial plants, with its high reliability

(CO<sub>2</sub> capture rate of more than 95% from flue gas, purity of more than 99.9% for captured CO<sub>2</sub>) and maintainability. Also, we are developing capture technology for CO<sub>2</sub> from the atmosphere (DAC), which is an essential aspect of achieving carbon neutrality.



**MITSUBISHI HEAVY INDUSTRIES**

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**Company Information**  
**Company Name:**  
 Mitsubishi Heavy Industries Ltd.

### Delivery Record, Case Studies

- As of September 2024, MHI has delivered a total of 18 commercial CO<sub>2</sub> capture plants worldwide.
- MHI is participating in the Tohoku Region West Coast CCS initiative, one of the advanced CCS projects promoted by JOGMEC\*. For this initiative, 7 companies are carrying out a joint study regarding separation and capture of CO<sub>2</sub> at steel factories etc, as well as ship transportation (to candidate storage locations) and storage of CO<sub>2</sub>.



**World's Largest CO2 capture plant (America, Petra Nova)**

**Industry:**  
 Manufacturing

**Address:**  
 Unit 49-B, Level 49, Vista Tower,  
 The Intermark, 348 Jalan Tun Razak,  
 50400 Kuala Lumpur, Malaysia

**Contact Person:**  
 Daisuke Wakasugi

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 +60 1123525827

**Email:**  
[daisuke.wakasugi.md@mhi.com](mailto:daisuke.wakasugi.md@mhi.com)

**Company Website:**  
<https://www.mhi.com/>

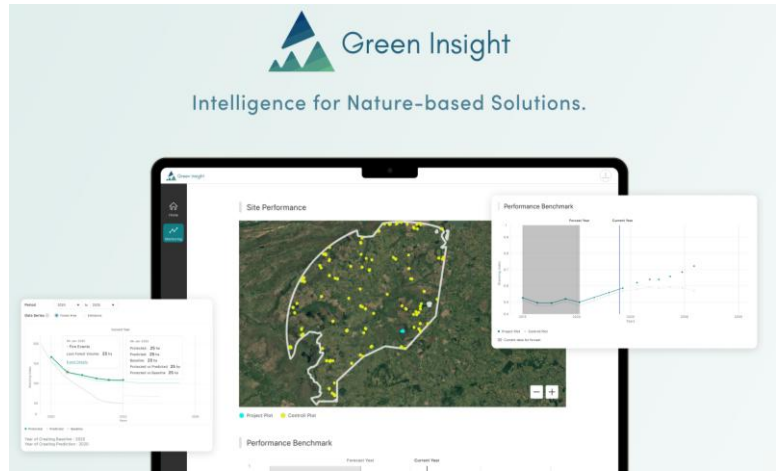
\*JOGMEC: Japan Organization for Metals and Energy Security

# Delivering High-Integrity Nature-Based Carbon Credits Through Satellite Intelligence

## Archeda Inc.

### Overview of Products and Services

We are a startup that leverages satellite data and AI to support the creation of high-integrity, nature-based carbon credits. We provide end-to-end project development support — from Feasibility Studies (FS) through Project Design Documents (PDD) to ongoing monitoring — covering forests (ARR & REDD+), paddy fields (AWD), mangroves, and more. Our projects are developed in full compliance with leading international carbon certification standards, including the Joint Crediting Mechanism (JCM), Verified Carbon Standard (VCS), and Gold Standard.



Green Insight Imagery ©Archeda

### Key Points of Decarbonization and Sustainability

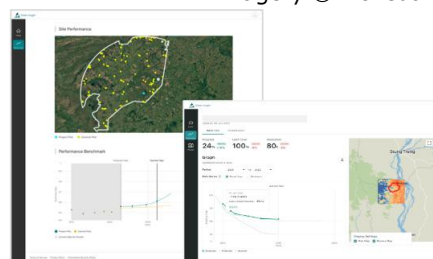
As the world accelerates toward carbon neutrality, nature-based carbon credit projects (from forests to other natural ecosystems) are gaining critical importance in the fight against climate change. We leverage satellite data to digitize (DX) the carbon project development process and support the creation of high-integrity credits, with the goal of building a transparent, industry-leading natural capital assessment system.

### Achievements/Case studies

Our company provides data analysis solutions for a variety of carbon projects across Southeast Asia, including forest biomass map development in collaboration with JAXA (Japan Aerospace Exploration Agency), flooded field condition analysis for the introduction of Alternate Wetting and Drying (AWD) in rice paddies in Vietnam and the Philippines, as well as reforestation and agroforestry initiatives.



Rice Paddy Inundation Assessment Imagery ©Archeda



Forest Project Monitoring ©Archeda



### Company Information

**Company Name:**  
Archeda Inc.

**Industry:**  
ICT

**Address:**  
Kasumigaseki Building 36F,  
Workstyling Kasumigaseki  
Building, 3-2-5 Kasumigaseki,  
Chiyoda-ku, Tokyo

**Contact Person:**  
Takamasa OGASAWARA

**Phone :**  
08052275077

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[takamasa\\_ogasawara@archeda.i  
nc](mailto:takamasa_ogasawara@archeda.inc)

**Company website:**  
<https://archeda.inc/>

## 7. Others

- **MUFG Bank (Malaysia) Berhad**
- **Sagri Co., Ltd.**
- **J&T Naza Alam Murni Sdn.Bhd.**
- **JFE Steel Corporation**
- **Sumitomo Mitsui Banking Corporation Malaysia Berhad**
- **Daikin Malaysia Sdn.Bhd.**
- **Dynapac GF (Malaysia) Sdn.Bhd.**
- **Mizuho Bank (Malaysia) Berhad**
- **Mitsubishi Research Institute**

# MUFG - Net Zero World "MUFG NOW"

## MUFG Bank (Malaysia) Berhad



Malaysia's Road to Sustainability and Energy Transition



Malaysia, 05 March 2024 – MUFG Bank (Malaysia) Berhad gathered close to 100 business leaders, policymakers and industry experts and partners to its inaugural MUFG NOW conference in Kuala Lumpur, Malaysia

"MUFG NOW – journeying to a Net Zero World" (MUFG NOW) is MUFG's flagship climate thought leadership to lead, drive and facilitate conversations around environment, social, and governance (ESG) in Asia Pacific. This event brings together private and public stakeholders to strengthen collective responses to the challenges and opportunities of sustainable development in the region. MUFG NOW underscores a growing awareness and commitment among companies in embracing sustainability and incorporating ESG best practices and solutions in their businesses.

The inaugural event in Malaysia, held on 5 March 2024, received high praise from participants. In response to the positive feedback and to meet the expectations of our stakeholders, MUFG is excited for its return, with the next event set for March 2025.

### Highlights of MUFG NOW 2024

MUFG NOW emphasized the urgent need for collaboration between the private and public sectors to mobilize transition financing for decarbonization, harness technological innovation, and, more importantly, leverage on Malaysia's strengths, from its abundant natural resources to its global stature as an Islamic finance hub.

Prominent speakers from Bank Negara Malaysia, leading energy and industrial corporations, including MUFG experts, joined in lively discussions followed by networking, facilitating the exchange of valuable insights and fostering potential collaborations.



Keynote address by Madelena Mohamed Director, Sustainability Unit at Bank Negara Malaysia



Ryoichi Abe, Chief Representative in Singapore at the Japan Bank for International Cooperation



Dr Noor Miza Razali Head, PMO Energy Transition at TNB (Tenaga Nasional Berhad)



Chen Ping Shang Head of Strategy, Planning and Finance for Hydrogen at Gentari



### Company Information

**Company Name :**  
MUFG Bank (Malaysia) Berhad

**Industry :**  
Finance

**Address :**  
Level 22, 23 & 24, Plaza Conlay, No.18, Jalan Conlay 50450 Kuala Lumpur

**Contact Person :**  
Atsushi Yoshida / Michelle Lim

**Phone :**  
(+60) 03-2034 8108 /  
(+60) 03-2034 6010

**Email :**  
[atsushi.yoshida@my.mufg.jp](mailto:atsushi.yoshida@my.mufg.jp) /  
[michelle.lim@my.mufg.jp](mailto:michelle.lim@my.mufg.jp)

**Company Website :**  
<https://www.bk.mufg.jp/malaysia/index.html>

### MUFG NOW 2.0, March 2025!

The next MUFG NOW will cover broader topics, including the potential of green energy in East Malaysia and the possibilities for further business collaboration with local companies. The event is planned for March 2025. If you wish to participate or have any inquiries, please contact our representative or visit the URL on the right.

# Decarbonization of Farmland and Generation of Carbon Credits Utilizing Satellites and AI

## Sagri Co., Ltd.



### Overview of Products and Services

We are providing a decarbonization service for farmland, using satellite and AI technology, to food and agricultural companies, enabling the creation of carbon credits from farmland in ASEAN countries. Our patented AI polygon technology, developed in Japan, accurately detects small farmland parcels in Southeast Asia. This technology allows for a quick and precise assessment of farmland sizes, which serves as a foundation for projects generating carbon credits. Our soil prediction model, based on satellite data, enables affordable soil diagnostics and can help address the common issue of over-fertilization on ASEAN farmlands. By reducing nitrous oxide (N<sub>2</sub>O) emissions from chemical fertilizers, we further contribute to the creation of carbon credits. Additionally, in collaboration with JAXA, we use satellite-based water detection technology for objective monitoring of alternate wetting and drying (AWD), a methane reduction technique in rice farming.

### Key Points of Decarbonization and Sustainability

- We can advance the decarbonization of the agricultural sector, one of the main sources of emissions in Malaysia.
- By leveraging satellites and AI, we make it possible to conduct broad-scale, low-cost, and accurate monitoring—key for effective decarbonization.
- Our services also support Scope 3 emissions measurement for food companies sourcing raw materials from farmland.
- By creating carbon credits and redistributing sales profits to farmers, we can help alleviate poverty among farming communities.
- Selling these carbon credits to large Japanese corporations also contributes to the achievement of carbon neutrality for Japanese companies.

### Achievements/Case studies

- We currently have no track record in Malaysia but are operating in ten countries worldwide, including ASEAN nations. ***\*Palm trees are not included in the analysis scope of our satellite services.***



Sagri

### Company Information

**Company Name :**  
Sagri Co., Ltd.  
(Singapore Subsidiary)

**Industry:**  
Agritech  
**Address:**  
51 GOLDHILL PLAZA, #07-10/11, Singapore 308900

**Contact Person:**  
Kazuki Sakamoto  
**Phone Number:**  
+65 8657 8375  
**Email:**  
Sakamoto-kazuki@sagri.co.jp

**Company Website:**  
<https://sagri.tokyo/>

# Decarbonization through Proper Management of Designated Industrial Waste

## J&T Naza Alam Murni Sdn.Bhd.

### Overview of Products and Services

Equipped with sanitary landfill, cement solidification, incineration, and waste heat recovery facilities.

Licensed by the Malaysian Department of Environment to handle all 77 waste codes (SW Codes), except explosive waste, for both solid and liquid waste.



### Key Points of Decarbonization and Sustainability

Contributing to environmental impact reduction through the detoxification and stabilization of hazardous industrial waste. This plant's stable operations promote proper waste management to address the growing industrial waste pollution issue in Malaysia.

The industrial waste incinerator imported from Japan helps reduce landfill disposal volumes, while the waste heat recovery system lowers CO2 emissions.

### Achievements/Case studies

This joint venture was made possible through capital participation from J&T Environmental Co., Ltd., a member of the JFE Engineering Group, which operates industrial waste recycling businesses in Japan.

A factory manager for the incineration plant was dispatched from Japan to ensure compliance and provide proper waste management services. The facility accepts and processes waste from numerous Japanese and non-Japanese companies.



**NAZA**

#### Company Information

**Company Name :**

J&T Berjaya Alam Murni Sdn.Bhd.

**Industry :**

SW Treatment

**Address :**

Bukit Tagar Enviro Park, Selangor

**Contact Person :**

Sathish Kurup (Berjaya Eco Services Sdn.Bhd.)

**Phone :**

03-2302-6664  
019-759-4877

**Email :**

[sathish@berjayaeco.com](mailto:sathish@berjayaeco.com)

**Company Website :**

<https://jt-bam.com.my/>

# JFE Steel Corporation supplies green-steel named "JGreeX™"

## JFE Steel Corporation



### Overview of Products and Services

- In the first half of FY2023, JFE Steel began supplying JGreeX™, a green steel product that significantly reduces GHG emissions in the manufacturing process compared to conventional products.
- JGreeX™ applies the steel mass balance approach, calculating emission factors and reduction amounts based on ISO standards. It ensures transparency and additionality through third-party certification.

<b>Supply Availability</b>	<b>Approximately 500,000 tons(FY2024)</b>
<b>Certification Body</b>	<b>ClassNK (Nippon Kaiji Kyokai)</b>

JFE Steel Website: "About Green Steel 'JGreeX™'"

[JFE Steel Corporation | Products | About JFE's green-steel "JGreeX™"](#)

The Japan Iron and Steel Federation Website: "Overview of the Steel Mass Balance Approach"

[https://www.jisf.or.jp/en/activity/climate/documents/ENMassB-GS\\_eng\\_2s.pdf](https://www.jisf.or.jp/en/activity/climate/documents/ENMassB-GS_eng_2s.pdf)

Applicable ISO Standards ISO 20915 ISO 14064 ISO 22095

### Key Points of Decarbonization and Sustainability

#### Overview of the "JGreeX™"



- STEP.1** -----  
Calculate the emissions intensity of any steel product to apply this approach
- STEP.2** -----  
Identify emissions reduction projects and determine their emissions reduction levels
- STEP.3** -----  
Issue a reduction certificate based on the determined reduction level, grant the certificate, and supply steel materials.



### Company Information

**Company Name :**  
JFE Steel Corporation

**Industry :**  
Steel making

**Address :**  
16 Raffles Quay, No.15-03, Hong Leong Building, 048581, Singapore

**Contact Person :**  
Kobayashi Atsushi

**Phone :**  
65-6220-1174

**Email :**  
ats-kobayashi@sg.jfe-steel.com

**Company Website :**  
<https://www.jfesteel.co.jp/en/index.html>

### Achievements/Case studies

- Ships, Bridges,
- Buildings (Office Buildings, Logistics Warehouses)
- Industrial machinery, Transformers, and Cans (Badges)



# Sustainable Finance Initiatives for Fulfilled Growth

## Sumitomo Mitsui Banking Corporation Malaysia Berhad



### Overview of Products and Services

- **Project Finance**  
Financing mainly for renewable energy projects.
- **Real Estate Finance**  
Financing related to properties that have obtained green building certification
- **Green Loan**  
Lending with limited use of proceeds: only towards green projects in line with LMA/APLMA Green Loan Principles.
- **Social Loan**  
Lending with limited use of proceeds: only towards social projects in line with LMA/APLMA Social Loan Principles.
- **Sustainability Linked Loan (SLL)**  
Lending with unlimited use of proceeds: linked to ESG-related numerical targets (Sustainability Performance Target "SPT") consistent with the borrower's business strategy, and in line with LMA/APLMA Sustainability Linked Loan Principles.
- **ESG Related Trade Financing**  
Green, Social, and Sustainability-Linked Trade Financing.
- **Green Deposit**  
Deposits which provide customers with ESG/SDG investment opportunities. Funds from the Green Deposits are used to finance environmentally beneficial projects such as renewable energy.

### Key Points for Decarbonization and Sustainability

To support the sustainable growth of our customers and contribute to the decarbonization of the real economy by providing a wide range of sustainable finance products. For details, please contact us.

### Achievements / Case Studies

- **Islamic Green Financing**  
A company entered into Islamic Green Financing. The funds granted under Islamic Green Financing will be used for installation of solar power generation facilities at the plant. It is a financing in MYR for a tenor of 5 years. Contributing to the company's initiative towards sustainability, as well as building presence and reputation in local markets.
- **SMBC Group's sustainable finance in the global market**





SUMITOMO MITSUI BANKING CORPORATION MALAYSIA BERHAD

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#### Company Information

**Company name :**  
Sumitomo Mitsui Banking Corporation Malaysia Berhad

**Industry :**  
Finance

**Address :**  
Suite 22-03, Level 22, The Intermark, Integra Tower, 348, Jln Tun Razak, Kampung Datuk Keramat, 50400 Kuala Lumpur, Wilayah Persekutuan

**Person in charge :**  
Julie Lim, Shunsuke Machiyama

**Phone :**  
+603-2176 1500

**Email :**  
[generalenquiries@my.smbc.co.jp](mailto:generalenquiries@my.smbc.co.jp)

**Company website :**  
<https://www.smbc.co.jp/global/malaysia/>

\*1: Dealogic (amounts extended in FY2023)  
\*2: Environment Finance (number of credits executed in FY2023)

# Daikin Malaysia's Decarbonization Initiatives

## Daikin Malaysia Sdn.Bhd.



### Overview of Products and Services

Daikin Malaysia Sdn.Bhd. is the only air conditioning manufacturer in Malaysia producing a wide range of HVAC equipment for the Malaysian and global export markets from basic residential air-conditioners to high technology light commercial and commercial heat pump, air-cooled and water-cooled chillers.

### Key Points for Decarbonisation and Sustainability

1. Eliminate LPG Usage- Change of LPG gas to Natural Gas for painting, brazing and drying oven process
2. Eliminate Diesel Usage - Change of Diesel usage for boiler, engine and forklift
3. Installation of Solar-PV to generate renewable energy
4. Refrigerant Recovery from process to reduce emission to air
5. Reclamation of recovered refrigerant from manufacturing process
6. Promote on low GWP products
7. Rainwater Harvesting System
8. Implement 3R activity to reduce waste go to landfill
9. Control use of VOC chemical in the manufacturing
10. Energy & Refrigerant Management to reduce CO2 emission to achieve Carbon Neutral Factory by 2030

### Achievements and examples

1. Stop use of LPG gas and Diesel in manufacturing.
2. 16% of electricity usage from Solar PV which reduces 3,310 tCO2 yearly.
3. Avoidance of refrigerant emission by optimize the refrigerant recovery from manufacturing process.
4. Avoidance of incineration of refrigerant with 85% reclamation rate.
5. Produce 90% of lower GWP product that use refrigerant (R32).
6. 17% of water was from harvested rainwater (25,508m<sup>3</sup> in FY23) that able to reduce city water usage.
7. 86% of waste was recycled that reduce quantity go to landfill.
8. Prohibit use of hazardous chemical to protect worker health
9. Achieve 33% reduction of CO2 emission from base year 2019 and plan to achieve 50% reduction in FY25



### Company Information

**Company name :**  
Daikin Malaysia Sdn.Bhd.

**Industry :**  
Manufacturing of HVAC  
**Address :**  
Sungai Buloh, Selangor

**Contact Person :**  
Calvin Tan  
**Phone :**  
03-6145 8600  
**Email :**  
[calvintan.chunseong@daikin.com.my](mailto:calvintan.chunseong@daikin.com.my)

**Company website :**  
[www.daikinmalaysia.com](http://www.daikinmalaysia.com)

# Reducing Greenhouse Gases in Packaging Materials (Others)

## Dynapac GF (Malaysia) Sdn.Bhd.



### Overview of Products and Services

1. Manufacturing and sales of cardboard made from low greenhouse gas emission paper.
2. Manufacturing and sales of pulp mold, a low greenhouse gas emission material.

### Key Points of Decarbonization and Sustainability

Leveraging expertise in raw materials, processes, and design development capabilities, we contribute to reducing greenhouse gas emissions in our customers' Scope 3 through the following four pillars:

1. Reducing the amount of paperboard used in cardboard packaging.
2. Transitioning to low-CO2 emission paperboard.
3. Replacing offset printing with water-based inkjet printing.
4. Substituting chemical cushioning materials with paper-based materials.

### Achievements/Case studies

<Examples of CO2 Emissions and Component Cost Reduction>

#### • Electrical Product Manufacturer A

Use of low CO2 emission paperboard + review of cardboard material

- CO2 reduction: 529g/box (-33%)
- Component cost reduction: 2.5% per box

#### • Food Manufacturer B

Use of low CO2 emission paperboard + review of packaging design and cardboard material

- CO2 reduction: 3,066g/packaging set (-42%)
- Component cost reduction: 26.0% per packaging set

#### • Electrical Product Manufacturer C

Styrofoam cushioning material → Paper cushioning material (pulp mold)

- CO2 reduction: 523g/cushioning set (-37%)
- Component cost reduction: 3.9% per cushioning set



#### Company Information

##### Company Name :

Dynapac GF (Malaysia) Sdn.Bhd.

##### Industry :

Paper & Pulp

##### Address :

No.10, Jalan TP4, Taman Perindustrian Bukit Rambai MuKIM Tanjung Minyak, 75250 Melaka

##### Contact Person :

One Kazuya

##### Phone :

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##### Email :

[ohno@dynapac-gr.com.my](mailto:ohno@dynapac-gr.com.my)

##### Company Website :

<https://dynapac-gr.com.my/>

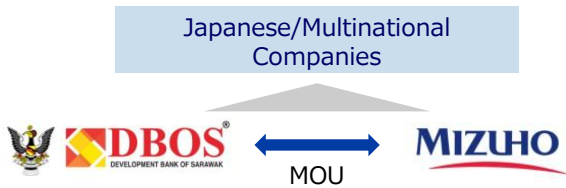
# Mizuho Bank Malaysia's Initiatives for Sustainability

## Mizuho Bank (Malaysia) Berhad

### Strategic Partnership with DBOS

#### [Background]

- Sarawak has significant potential in sustainability, including natural capital.
- With the state's leadership, Sarawak Sustainability Blueprint 2030 identifies priorities and roadmap for sustainability.



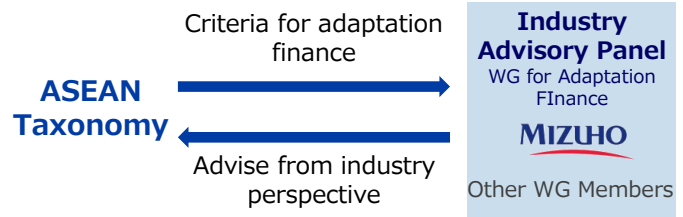
#### [Mizuho's solutions]

- In Oct 2025, Mizuho signed an MOU with DBOS to establish strategic partnership.
- By linking DBOS and Japanese/global companies, Mizuho will contribute to identify investable projects in Sarawak.

### Adaptation finance

#### [Background]

- As extreme weather becomes more frequent, the importance of adaptation is increasing.
- Malaysian government is now developing National Adaptation Plan (MyNAP).



#### [Mizuho's solutions]

- Mizuho chairs Industry Advisory Panel to enhance applicability of ASEAN Taxonomy.
- Mizuho aims to contribute to development of guidance to facilitate capital mobilization to adaptation and resilience.

## Key Points of Sustainability

- Mizuho considers sustainability in the industry context. By sharing vision and pathway for decarbonization, Mizuho aims to support clients' transition journey through finance.
- By showcasing best practice in adaptation in Japan, Mizuho wishes to contribute to both strengthening resilience in Asia and creating business opportunities.
- Mizuho is a plenary session member of Joint Committee of Climate Change (JC3), regulator-industry platform for climate resilience in the Malaysia financial sector.

## Achievements/ Case studies



DBOS MOU signing event at AZEC Ministerial Meeting in KL



Support for ASEAN Capital Market Forum in development of mARs Guide\*

\*mitigation co-benefit and Adaptation for Resilience (mARs) Guide



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# Business Development and Implementation Support in the GX (Green Transformation) and Decarbonization Sectors

## Mitsubishi Research Institute, Inc.

**Mitsubishi Research Institute, Inc. is an independent think tank and consulting company. Leveraging its expertise and technology across various fields, it supports policy development and implementation in Asia, the Middle East, and other regions to address energy and sustainability challenges and promote a sustainable international society.**



### Overview of Products and Services

We provide support in scheme design and business development to Japanese companies conducting business in Malaysia, Malaysian companies, and the Malaysian government.

- Research, feasibility assessment, and demonstration support for decarbonization technologies and services (e.g., CCUS)
- Consulting on the creation, procurement, and utilization of carbon credits, including methodology development
- Implementation support, feasibility assessment, and development of implementation structure for renewable energy and biofuel projects
- Research and demonstration support for hydrogen demand expansion and market formation
- Optimal operation support for distributed energy resources
- Support for power system reform and digital transformation (DX) in transmission and distribution sectors

### Key Points of Decarbonization and Sustainability

- ✓ We have a team of approximately 160 consultants and researchers covering critical issues in the fields of energy and sustainability, including green transformation and decarbonization, renewable energy, power systems, stable energy supply, and resource circulation. Our team has extensive experience and an extensive relevant network.
- ✓ We provide solution services to private companies and government agencies, offering scheme design, policy recommendations, technology assessments, support for the demonstration and commercialization of advanced projects, and research and consulting to support business and industrial development domestically and internationally, as well as through our own business operations and subsidiaries.

### Achievements/ Case studies

With overseas offices in Hanoi and Dubai, we have abundant experience in ASEAN including Malaysia where we have a proven track record in ACN, TLP and CEFA.\*



[Implementation Details]

- Research, recommendations, and knowledge sharing on clean energy technologies
- Operational support for collaborative activities with Malaysia's SEDA\* as part of CEFA flagship activities, including planning and organizing workshops

※Asia CCUS Network (ACN), Technology List and Perspectives for Transition Finance in Asia (TLP), Cleaner Energy Future Initiatives for ASEAN (CEFA), Sustainable Energy Development Authority (SEDA)



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