## 3.3 Environmental Sustainability Management

### **Environmental Policies and Practices**

The Company pays attention to sustainable business operations on the basis of environmental responsibility, using natural resources, energy, and efficient waste management from the corporate value chain as well as being aware of the impact of greenhouse gas on global climate change to ensure that no environmental impact is created under the practice guidelines of the environmental management policy.



**12,689** mwh

Amount of electricity generated by solar rooftop systems



9,070.7 tons

Garbage and waste recycling



18.8%

Increase the use of renewable electricity



10%

Proportion of new products in the portfolio that use natural materials.



12,417.83

Amount of greenhouse gas reduction from renewable electricity and waste management



7.04%

Proportion of Younique brand furniture, a resource-efficient customized product

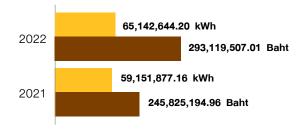
# **Environmental Performance**

# 1. Energy Conservation and Greenhouse Gas Mitigation

The Company focuses on energy conservation and promotes the use of natural resources for sustainable energy production by investing in solar rooftop systems at branches and factories. Since 2018, solar rooftop systems have been installed to increase the Company's proportion of clean energy consumption. This includes waste management and fuel management for product transportation and distribution. This is considered a reduction in greenhouse gas emissions when energy consumption from fossil fuels is taken into account, as it contributes to solving the global problem of climate change as well as the improvement of energy efficiency. The Company took significant actions on energy management and greenhouse gas problems as follows:



The Company places importance on efficient energy management by improving and maintaining equipment that controls the operations of the relevant electrical systems and building the awareness of energy saving in employees. In addition, the Company continuously established solar rooftop systems in both Distribution center and Index Living Mall branches. In 2022, the Company's electricity expenses increased from the previous year due to higher FT (variable tariff) and Index Living Mall can resume normal operations after COVID-19 was resolved. In regard to electricity consumption in the factory, there was an increase in electricity consumption as a result of the increased production of goods to support business growth.



The Company's Electricity Consumption (kilowatt hours (kWh))

■ The Company's Electricity Expenses (Baht)

Remark: This information includes all branches of ILM, Headquarters, distribution center, The Walk and affiliated factories



Efficient electricity consumption: The Company has practice guidelines for projects related to electricity management as follows:

### **Energy Saving Project**

Due to the foreseen sustainable energy savings, the Company implemented the Energy Saving & Efficiency in Retail Stores Project for all branches of Index Living Mall in order to plan for long-term energy management. The Company intends to improve the air conditioning systems and lighting systems by upgrading the machinery and equipment of the air conditioning systems as these systems consume the highest electricity. Switching the electrical systems to automatic systems and installing a new air conditioning system at the Lat Krabang branch of Index Living Mall. This will serve as a model for future branches and instill employee awareness of energy conservation at the branch and the headquarters. the Company has used the electricity consumption data in 2022 to set a goal to reduce the electricity consumption of its branches by 10% from the baseline year of 2022

### Solar Rooftop System Project

Since 2018, the Company has invested in a solar rooftop system project to continuously generate solar power at Index Living Mall stores and IDF factories in order to sustainably save energy. This is clean energy that contributes to the reduction of global warming. By the end of 2022, nine additional solar rooftop systems had been installed (Bang Bon Distribution Center and 8 branches of Index Living Mall). This brings the total number of locations to 24. This is a result of recognizing the opportunity to reduce electricity consumption at branches, the Company intends to continuously increase the number of solar rooftop systems in the future. In 2022, the solar rooftop system project can produce 12,688.80 mWh of electricity,

an increase of 18.84% from the previous year. It can also reduce greenhouse gas emissions by 6,052.56 tons of carbon dioxide equivalent (tCO eq).







## Amount of Electricity Produced from a Solar Rooftop

Year	2018	2019	2020	2021	2022
Amount of Electricity Generation (mWh)	4,561.06	6,133.158	8,064.40	10,677.05	12,688.80
Percentage of Increased Energy Generation Compared to the Previous Year	0%	34%	30%	32%	18.84%
The Amount of Greenhouse Gas Reduction/1 (Ton CO2 equivalent: tCO <sub>2</sub> eq)	998.42	2,986.85	3,927.36	4,994.51 <sup>1</sup>	6,052.56 <sup>2</sup>
Number of sites	5	11	11	15	24

Remarks: <sup>1</sup> Based on the amount of greenhouse gas reduction certified by the TGO in 2021 at 4,994.51 tCO<sub>2</sub> eq.

<sup>&</sup>lt;sup>2</sup>The amount of greenhouse gas reduction for 2022 is in the application process for certification from the TGO.

The Company also joined the Thailand Voluntary Emission Reduction Program (T-VER) from Thailand Greenhouse Gas Management Organization (Public Organization) of the Ministry of Natural Resources and Environment to demonstrate that the Solar Rooftop System of Index Living Mall Public Company Limited has been successfully registered. It has been certified for sub-project group 1 (CPA-01) for 7 branches with the amount of 1,571 tons of carbon dioxide equivalent per year (tCO eq/year) and registered projects cover current and future branches.

#### 1.2 Greenhouse Gas Management

The Company places importance on greenhouse gas mitigation in accordance with sustainability policies and strategies by expanding the solar rooftop system to produce renewable electricity at branches, affiliated factories, and the Company's distribution centers. In addition, the Company implemented waste management at the branches and distribution centers that have sufficient amounts of waste for recycling and gathered information for certification of greenhouse gas reduction from the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO) under the project "Low Emission Support Scheme" (LESS). In 2022, the Company reduced greenhouse gas emissions through all projects by a total amount of 12,417.83 tCO eq.

Greenhouse Gas Mitigation Amount $(tCO_2 eq)$	2021	2022¹
Solar Rooftop Installation Project	4,994.51	6,052.56
Waste Segregation Project for Recycling and Feeding Animals with Organic Waste from Food Scraps	3,344.99	6,356.27
Total	8,339.50	12,417.83

Remarks: <sup>1</sup>The greenhouse gas reduction amount for 2022 is in the application process for certification from the TGO.

In addition, the Company is in the process of studying the calculation of greenhouse gas emissions and assessments in accordance with the guidelines of the Thailand Greenhouse Gas Management Organization (TGO) in order to accurately disclose information regarding corporate greenhouse gas emissions in accordance with international standards in the future.

1.3 Fuel Management

Since the Company offers delivery and installation services for furniture and home furnishing products to customers all over Thailand, efficient fuel management from upstream transportation has been planned to reduce fuel costs. This includes the reduction of greenhouse gas pollution from fuel vehicles. The Company adjusted fuel consumption from the fleet card system to the installation of fuel bunkers in distribution centers. This enables more efficient monitoring and control of oil consumption.

In addition, the Company is currently in the process of developing a system to optimize the arrangement of bus routes in order to maximize the efficiency of every delivery and transportation trip. The Company plans to convert freight vehicles to electric trains by 2023 to reduce air pollution and greenhouse gas emissions from fuel combustion.

The Company's fuel consumption covers the Index Living Mall delivery process, including the delivery transportation of vendors (Tao Kae Noi), the delivery transportation of affiliated factories, and office cars used in the Company's business activities. In 2022, the amount of fuel consumption increased compared to the previous year as a result of increased sales. The details are as follows:

Oil and Fuel Consumption	2021	2022
Fuel Consumption (liters)	1,607,959.60	1,888,007.69
Diesel Fuel	1,501,556.02	1,723,607.89
Gasoline	106,403.58	164,399.80
Fuel Expenses (Baht)	42,996,743.85	60,986,791.98



The Company manages water consumption by having a maintenance plan and inspecting the water distribution system within the building at the headquarters of Index Living Mall, all branches, and affiliated factories in order to continually achieve water conservation standards by communicating with employees. In 2022, the Company's total water consumption was 25,871,604 cubic meters, a decrease of 9% compared to the previous year.

Water Consumption <sup>1</sup>	2021	2022
Water Consumption (m³)	28,520,586.84	25,871,604.00
Water Expenses (Baht)	10,303,757.72	11,223,697.32

<sup>1</sup>The Company's total water expenses Remarks:

The Company has continuously developed the wastewater treatment system to ensure that the effluent quality meets the standard. The Ratchaphruek Branch of the Walk Shopping Center received a certificate of appreciation from the Governor of Nonthaburi Province to demonstrate that the Ratchaphruek Branch of the Walk Shopping Center is an outstanding wastewater management model. For the fiscal year 2022, the Ratchaphruek Branch of the Walk Shopping Center implemented the Moving Bad Biofilm Reactor (MBBR) and Membrane Bio Reactor (MBR) systems to treat wastewater. The project began on May 18, F2021 until April 24, 2022, with a total budget of 6,400,000 Baht. The Moving Bad Biofilm Reactor (MBBR) system added a specially designed plastic medium to increase microbial adhesion surface area. The Membrane Bio Reactor (MBR) system is a combination of microbial technology for the removal of dissolved waste and filtration through a microporous membrane. It functions as a filter to treat discharged water. This is a form of activated sludge process. The wastewater technology is being used to develop the Walk shopping mall's wastewater at the Kaset Nawamin Branch, which is expected to be completed by 2023.



# 2. Waste Management

The Company places an emphasis on waste management by focusing on the reduction and waste control from the value chain from upstream to downstream destination. The Company adopted the concept of 3Rs, Reduce, Reuse, and Recycle in order to have efficient garbage and waste management. Waste from business activities, products, and services that cannot apply the 3Rs concept must be properly treated and disposed of in accordance with applicable regulations and laws.

## 3Rs Waste Management Guidelines



Reduce



Reuse



Recycle

The Company established measures and controls for waste management, and unused materials resulting from the proper production process that complies with the law, whether in the process of storage, transportation, or destruction, in order to prevent waste, unused materials, and hazardous waste from negatively impacting the environment and surrounding communities. The Company categorized the types of waste into 4 categories as described below.

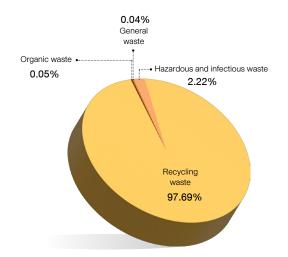
- Recyclable Waste: such as particle board, paper boxes, etc. The Company sells them to business partners in order to be reused.
- 2. Organic Waste: such as food scraps, etc. The Company arranged a wet waste room and installed air conditioners to control the temperature in order to slow down the growth of bacteria and control odors. The city municipality collects everyday. Additionally, food scraps are distributed to nearby farmers for use as animal feed.
- 3. General Waste: such as general garbage which is disposed of or utilized by the city municipality in accordance with sanitary principles.
- 4. Hazardous Waste and Infectious Waste: Hazardous waste includes contaminated waste and paint waste. This is properly disposed of in accordance with the standards of companies authorized by the Department of Industrial Works by being converted into fuel, safely buried in landfills, wastewater treatment by physicochemical methods, incineration

in a designated incinerator, etc. In regard to infectious waste, the Company segregates waste for contract parties or the city municipality to dispose of properly, such as waste from the Company's nurse office.

The Company has implemented projects to manage waste from product deliveries and installation such as cardboard boxes, plastic, or foam in the packaging boxes. In the past, customers were responsible for its care and disposal. The Company established a policy requiring installation staff to collect trash, clean the area where customer products were installed, and bring the waste back to the Company's designated area for management in order to reduce the burden on customers and recycle waste for the benefit of the Company. The Company has vendors who purchase and segregate waste and the sale of such waste generates additional revenue for the Company. The Company has participated in activities at the headquarters to segregate waste for recycling and proper disposal in accordance with the specified standards. The waste recycling data is collected for the assessment of greenhouse gas reduction in the annual LESS project of the TGO as well.

### Waste Management Performance

In 2022, the Company's waste was recycled/sold/ reused equal to 97.69% of the total waste. The waste is categorized as follows:



### Amount of waste in 2022 (kg)

	Total		9,097,622
	Hazardous waste and infection waste	2.22%	202,068
	General waste	0.04%	3,600
4)A	Organic waste	0.05%	4,380
	Recycling waste	97.69%	8,887,574

The Company pays attention to waste recycling for recyclable waste and organic waste due to its large volume. This represents 97.7% of the total amount of waste. It is sold to business partners to be reused. Organic waste in the form of food scraps is used for animal feed. As for the hazardous waste generated from the production process, it will be properly disposed of in accordance with the standards. They are recycled by making fuel (88.46%), safely buried in landfills (6.40%), physicochemical treatment of wastewater (5.12%), and incineration (0.02%). In 2022, the combined weight of recyclable hazardous and nonhazardous waste was 9,070,694 kilograms.

Waste Management (kilogram)	2021	2022
The Amount of Garbage and Waste of the Company	8,654,608.00	9,097,622.10
The Amount of Garbage and Non-Hazardous Waste	8,430,115.00	8,895,554.10
Total Amount of Garbage and Hazardous Waste	224,493.00	202,068.00
The Amount of Garbage and Waste that Can be Reused/Recycled	8,622,663.00	9,070,694.00
The Amount of Garbage and Non-Hazardous Waste that Can be Reused/Recycled	8,429,859.00	8,891,954.00
The Amount of Garbage and Hazardous Waste that Can be Reused/Recycled	192,804.00	178,740.00

In order to display the responsibility for the local level of waste management, the Phitsanulok Branch of Index Living Mall participated in the Phitsanulok Recycle City Project that segregated the solid waste from the upstream destination of department stores. This project is organized by the Pollution Control Department under the operation of the Phitsanulok Project and the Environment Office Region 3 by separating general waste as dry waste to produce Refuse Derived Fuel - RDF. The Company has participated in the project since March 2021 and it received an honor plaque from the Director General of the Pollution Control Department.







The Company collaborated with AIS to manage E-waste and become one of Hub of E-Waste for collecting electrical and electronic equipment waste from customers. business partners, employees and people in order to deliver to AIS to manage all E-waste into standard recycle process. Moreover, the Company realizes the importance of dangerous waste management, so the Company has jointly announced the intention to cooperate with the government and the private sector in collecting hazardous waste from the community with Pollution Control Department.

In addition, the Company places great importance on conducting business in compliance with laws, regulations, requirements, and international environmental standards related to the Company, as well as continuously monitoring, inspecting, and evaluating operations. In 2022, the Company did not receive any complaints regarding violations of laws or environmental regulations.

3. Eco Product, Packaging and Service Development The Company believes that product design and development and sustainable management of raw materials in production are considered to be the upstream environmental management that helps reduce waste from the source. The Company prioritizes environmentally friendly product development and packaging policies and promotes the use of plastic with social and environmental responsibility in order to increase the proportion of environmentally friendly products for the furniture and home furnishings market.

Additionally, this is an indirect support of consumption responsibility. In 2022, the Company implemented the relevant projects as follows:

# Development of Product Design with Natural Materials

To increase the percentage of environmentally friendly products in the Company's new product portfolio, the Company began developing and designing furniture and home furnishings products made from natural materials that are biodegradable and easy to find materials in Thailand in order to distribute income to the community in an alternative manner.



Furniture: The Company focuses on developing new furniture products that are compatible with natural materials and have market potential. This includes dining table sets, outdoor furniture, and bedroom sets with the design and selection of real wood materials as the primary material, as well as upcycling old wood to create new furniture, especially old teak





wood that has an elegant appearance but durable quality. Old wood materials can be repurposed into new pieces of furniture in a variety of styles, increasing the value of old wood that is available and popular on the market. In 2022, 8% of the Company's newly developed products consisted

of furniture made from natural materials. In addition, the Company developed online Assemble Instruction manual for all furniture produced by the affiliate factories. The manual is easy to access online for installers by either scanning QR code on product packages or inputting SKU number of product on website, the installers can see the assemble process of each furniture step by step online from anywhere and anytime. This reduces paper consumption in producing Assemble Instruction manual for 100%

Home Furnishings: Eco-friendly products made from natural materials included Home solution wood products which are baskets, hangers, storage boxes, bins, shelves, and materials from PP plastic, wheat straw, and biodegradable materials. The Kitchenware products are food boxes, utensils, kitchen equipment, baskets, etc.

In 2022, the Company developed new products made from natural materials, including furniture and home furnishings. This represented 10% of the total number of newly developed products in the category. These products were available for sale at all Index Living Malls and received excellent feedback from customers. The Company has a road map to design and develop products made from natural materials, with the expectation to extend natural materials to other product categories in the future.

### **Environmentally Friendly Design**

The products in the category of mattresses are large and require a significant quantity of packaging materials. As a result, the Company has modified the packaging format for mattresses by implementing the Compress Rolling innovation, which rolls the mattress into a smaller, more transportable size, allowing up to five times as many mattresses to be stored in a container. It also reduces the amount of storage space required for products in the warehouse or during delivery. This decreases the number of delivery cycles, which contributes directly and indirectly to greenhouse gas emissions. In 2022, the Company increased mattress packaging with the Compress Rolling system to 39% of all House Brands mattresses. The goal is to have 50% of all House Brand mattresses manufactured using Compress Rolling by 2023.

For home furnishings, the Company reduces the use of plastic packaging by changing the packaging of Textile product category to be recycled paper ro cloth bags instead of plastic and designing smaller packaging. For some products in needs of plastic packaging such as blankets, the Company designs the package with minimum amount of plastic used. The Company plans to expand



this program to other home decorative product groups in the future in order to meet the goal of reduction in plastic usage which the Company had announced the policy to stop using plastic bags in every branches of Index Living Mall since 2019. In addition, the Company develops energy saving products such as Cooling Pillow & Blanket and stain resistant curtain which is no need to clean often.

# Develop Customized Products to Increase the Efficiency of Natural Resources

Younique brand furniture is customized furniture that can be manufactured according to a custom design (More information is available at: https://www.youniquedesign. com/about-younique). There is a system for designing and calculating the cost-effective use of wood and components, which conserves raw materials and improves the efficiency of natural resource utilization.

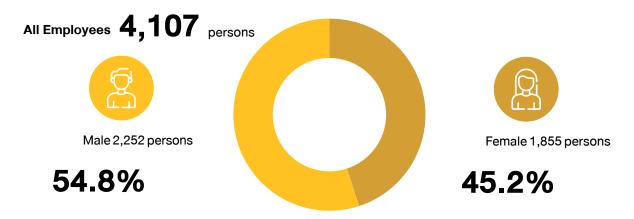
The Company has collaborated with domestic and international business partners to order raw materials and fittings without maintaining a large inventory. There is a plan to increase the recruitment of business partners who are able to collaborate under this condition. In addition, the Company has developed and designed components and fittings as common parts that can be used in a variety of furniture models to reduce the number of components used in product manufacturing.

In 2022, Younique brand furniture, which is customized furniture, contributed to the sustainable use of resources. The proportion of total income compared to the total sales of furniture products is 7.04%.

## 3.4 Sustainability Management in Social Dimension

#### Social Policies and Practices

The Company recognizes the importance of conducting business with corporate social responsibility (CSR) under ethical principles to achieve fairness for all stakeholders, as well as applying good corporate governance principles as a guideline to maintain operational balance in terms of economy, community, society, and the environment so that external stakeholders which include customers, suppliers, communities, and the society can grow together and have a better living in tandem with the business operations. The Company has a policy to respect human rights, child labor, and women labor by emphasizing labor practices, respect for human rights, child labor, and women labor, as well as equality in all forms of labor in order to create a happy working environment where employees at all levels accept and treat one another as family.



## **Proportion of Ages**

< 30 years old 1,035 persons

**25.2%** 

30 – 50 years old 2,731 persons **66.5%** 

>50 years old 341 persons

8.3%



- Outstanding Award Support Organization for Persons with Disabilities for 3 consecutive years (2020-2022).
- Outstanding Award Model Organization for Sustainability in the Thai Capital Market Support for people with disabilities for the year 2022.
- Outstanding Award in Labor Relations and Labor Welfare for 13 branches in 2022



Complaints about human rights and labor issue



Proportion of third parties hired in the Tao Kae Noi Project

= 69%