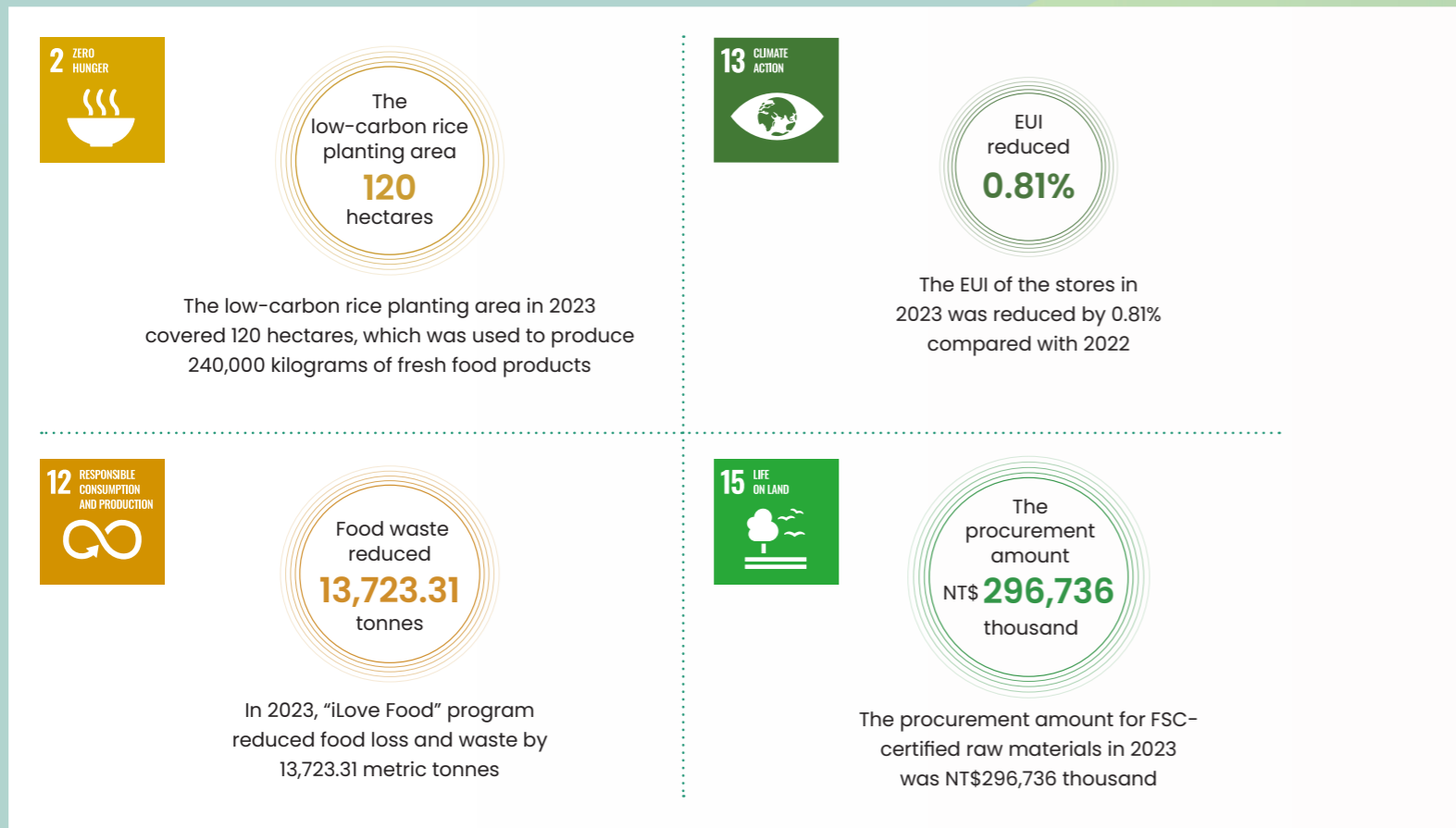


04 Creating a Sustainable Planet

At present, various environmental issues such as climate change, plastic pollution, food loss and waste, and waste management are closely related to sustainable corporate operations. Effectively adopting green operations, optimizing resource efficiency and realizing environmental sustainability are important elements in President Chain Store Corporation's overall operating value chain. As the leader in convenience stores, we hope to strike a balance between convenience and environmental impact by being committed to reducing the negative impact of plastics, waste disposal, food loss and waste in our operations, as well as actively improving our ability to address climate change issues.



Policies and Commitments	<ul style="list-style-type: none"> ● Environmental policy ● GHG policy ● Energy policy ● Packaging material management ● Waste management ● Food loss and waste management
	<p>Management Policies</p>
Management Actions	<ul style="list-style-type: none"> ● Inventory and management of environmental information (greenhouse gas emissions, packaging material consumption, waste removal and food loss and waste production in the stores) ● Energy-saving and carbon reduction actions and low-carbon transition plan for own operations and value chain ● Adaptation strategies for climate-related physical and transition risks ● Actions towards plastic reduction (reducing product packaging and single-use plastic used for in-store services, expanding recycling mechanism, building a model for recycled cups, procuring packaging materials with sustainability certifications) ● Food loss and waste management (reducing the scrap rate of fresh food, improving the management mechanism of the manufacturers, improving the recovery rate of food waste, upgrading order-to-deliver system) ● Waste management (setting up a convenient recycling platform in stores, refurbishment and reuse of store equipment, waste reduction for all operating locations, managing waste flows with suppliers)



4.1 Environmental Management

Policies and Commitments

To realize the vision of green operations, President Chain Store Corporation has formulated policies and plans about environment management, covering areas such as energy, greenhouse gases, water resource, biodiversity, waste and food waste management as the guiding principles for the Group's actions on environmental issues. Short, medium and long-term targets have been set based on this foundation (see [1.4 Process Management of Sustainable Targets](#)) to incorporate the concept of environmental sustainability into all aspects of the value chain. Year 2021 was declared as the "Year One of Sustainability" for President Chain Store Corporation. We have incorporated different sustainability policies such as plastic reduction, carbon reduction, and food waste reduction to our operations and business model in order to make green consumption a part of daily life based on the concept of "Planet Sustainability In Our Everyday Life." Moreover, President Chain Store Corporation has set up the Integrated Services Center hotline (0800-008-711) and email (public@mail.7-11.com.tw) as convenient channels to further communications with stakeholders.



President Chain Store Corporation is dedicated to becoming the best retailer, providing the most convenient lifestyle services and fulfilling our responsibilities as a corporate citizen. To this end, four task forces of "Plastic Reduction," "Carbon Reduction," "Food Waste Reduction" and "Sustainable Procurement" under the Environmental Group of the Sustainable Development Committee have been selected to take charge of ESG policies, systems or management regarding various environmental aspects as well as proposing and formulating concrete action plans. Our commitments are as follows:

- Comply with environmental protection laws and regulations and prohibit any behavior that may harm the environment.
- Continuously improve our environmental protection performance, as well as optimizing our surrounding environment.
- Cherish the use of resources and increase recycling and reuse, sticking to the principle of "making the most of resources."
- Endeavor to reduce the amount of waste based on the concept of "pollution prevention."
- With consideration to the environmental impact of our products and services in each phase of the life cycle from R&D, design, manufacturing, packaging to delivery, we will reduce resource consumption and increase the efficiency of resource use.
- Build up an eco-friendly value chain step-by-step, take environmental aspects into the suppliers screening, new projects developing and decisions making of merge and acquisition.
- Care for community development and manage sustainable relationships with local communities.
- Promote environmental education and training, share environmental protection concepts with stakeholders like employees and customers in order to protect the environment together
- Set short- and medium-term environmental management goals to actively reduce the negative impact on the environment from the production process to the value chain of distribution and logistics.
- Promise to achieve the net-zero emissions target for Taiwan's store operations by 2050 in response to the Paris Agreement's global strategy of limiting global warming to within 1.5°C.
- Commit to reducing 30% of plastic consumption for President Chain Store Corporation's private-label packaging/materials by 2030 compared to 2019, in line with the Global Plastics Treaty.



As we strive to meet customer needs, we have made energy conservation and carbon reduction actions a core value of our business strategy. We use our stores as a base for energy conservation and carbon reduction by maximizing our advantage as a retail channel. We also exert our influence through the benefits of energy conservation.

Our commitments:

- Complying with the government's energy laws and regulations and continuing to make energy improvements.
- Expanding stores with energy saving designs and developing and selling energy-efficient products.
- Optimizing our energy use to achieve sustainable corporate development.



As a member of the global village, President Chain Store Corporation lays great emphasis on the use of energy and resources, as well as the environmental impact. To fulfill our corporate responsibilities, we will control and manage the current status of greenhouse gas emissions and promote energy-saving and carbon-reduction plans based on the result of the inventory. President Chain Store Corporation has committed to achieving net-zero for Scope 1 and 2 greenhouse gases within its operations by 2050.

Communications and Incentives

President Chain Store Corporation shares ideas with store employees by integrating policy with practice through a variety of campaigns, online courses and education and training, helping each employee incorporate environmental management in their daily routines. In 2023, a total of 17,975 store employees completed the campaign and training course related to environmental protection, including employees of directly operated stores and franchisees with a total of 3,376 hours. In order to increase the awareness of procurement personnel on sustainability issues, a session on trends in carbon reduction and sustainability in the retail industry was organized with a total of 200 man-hours.

Environmental Protection Campaigns or Training Courses in 2023

Topics	Targets	Man-Hours
Plastic Reduction Online Course	All employees/franchisees	677
Compliance campaign: eliminating plastic straws	All store employees	45
In-store recycling and coffee ground reuse	All store employees/franchisees	167
In-store energy-saving and carbon reduction measures	All store employees/franchisees	785
Coffee quality assurance and raw material management of regulations on the use of plastic straws, encourage the use or reusable cups	All store employees/franchisees	1701
Trends in carbon reduction and sustainability in the retail industry	Procurement unit	200

To encourage employees to actively manage energy use in stores, President Chain Store Corporation has formulated the "Energy Conservation Incentive Measures for Stores." The measures include the electricity fee management outcomes of newly opened and renovated stores, and take the power consumption management of existing stores and energy conservation improvements into employees, store and regional engineering performance appraisal items. Monetary rewards are given to those who discovered abnormal store electricity bills. In 2023, NT\$31,755 was given out as reward to those discovering abnormality in store electricity bills. As Taiwan Power Corporation adjusted peak and off-peak hours this year, the employees attempted to mitigate the impact of this measure on store electricity consumption through reviewing abnormalities in bills. As a result, reward money increased compared to previous years. As of 2023, the cumulative of NT\$49,484 was given out as reward money.

In addition to internal training for store employees, President Chain Store Corporation continues to launch various sustainable initiatives to integrate sustainable actions into consumer behavior. This includes taking the initiative to stop offering single-use cutlery in the stores, recycling plastic packaging for shopping discount and waste batteries and electronics for cash back, double points for plastic reduction products and so on. In 2023, we continue to expand the OPEN iECO Recycled Cups Renting Service to include affiliated companies such as Starbucks and 2iPlus. In addition, we launched the Intelligent Automatic Recycling Machine service to exchange for monetary reward for recycling, as an attempt to increase the consumers' willingness to recycle PET bottles and batteries. President Chain store Corporation hopes to encourage consumers of all ages to support eco-friendly actions through the stores as well as online and offline channels, making sustainability part of everyone's daily life.

Water Resource Management

Water supply and quality have a direct or indirect impact on the business model of chain stores regarding the products and services we can provide to the consumers. Especially in areas with tight water resources, how to reduce the operational impact on the local water resources is one of the key focus in overall operating value chain. All operating locations of President Chain Store Corporation use tap water. Besides for the fresh-brewed beverages, the overall water consumption is the most for store cleaning. For the moment, water-saving taps and toilets have been introduced in all stores. Some stores are also running a pilot program to use RO (reverse osmosis) residual water and collected rainwater for cleaning the stores.

After analyzing the correlation between operating activities and water consumption of stores, we deducted the water used for fresh-brewed beverages as the base for managing store water consumption. President Chain Store Corporation commits to reduce the water consumption per store by 1% compared with previous year and set the base year as 2019 (after deducting the water used to fresh-brewed beverages). By 2025, the water consumption should be reduced by 5% compared to the base year. In 2023, the total water withdraw of President Chain Store Corporation was 3,272,705.04 cubic meters, and the total water consumption was 129,723.72 cubic meters. The scope covers stores, head office, shopping centers and regional offices. The scope covers stores, headquarters, shopping centers and regional offices. Moreover, the average water consumption per store in 2023 was 433.93 cubic meters, a decrease of 4.87% compared with the base year. In the future, we will continue to track the changes in water consumption as a reference for future target setting and water management.

Although the headquarters building accounts for a relatively small amount of water consumption, we set an example by closely monitoring the annual water consumption as an internal management indicator, as well as reducing water consumption through water-saving actions. For example, in order to reduce the amount of water coming out of the taps in restrooms and coffee rooms, we installed water-saving devices at the urinals, adjusting the optimal water output of the toilets, reducing the frequency of sprinklers and so on.

Biodiversity Management

In the current era of rapid globalization and urbanization, chain convenience stores have long been part of people's daily lives. President Chain Store Corporation clearly understands that in addition to the impact on nature, our value chain activities also have a high degree of impact on natural resources. Therefore, protecting biological diversity is the embodiment of our environmental responsibility, as well as the key to sustainable development.

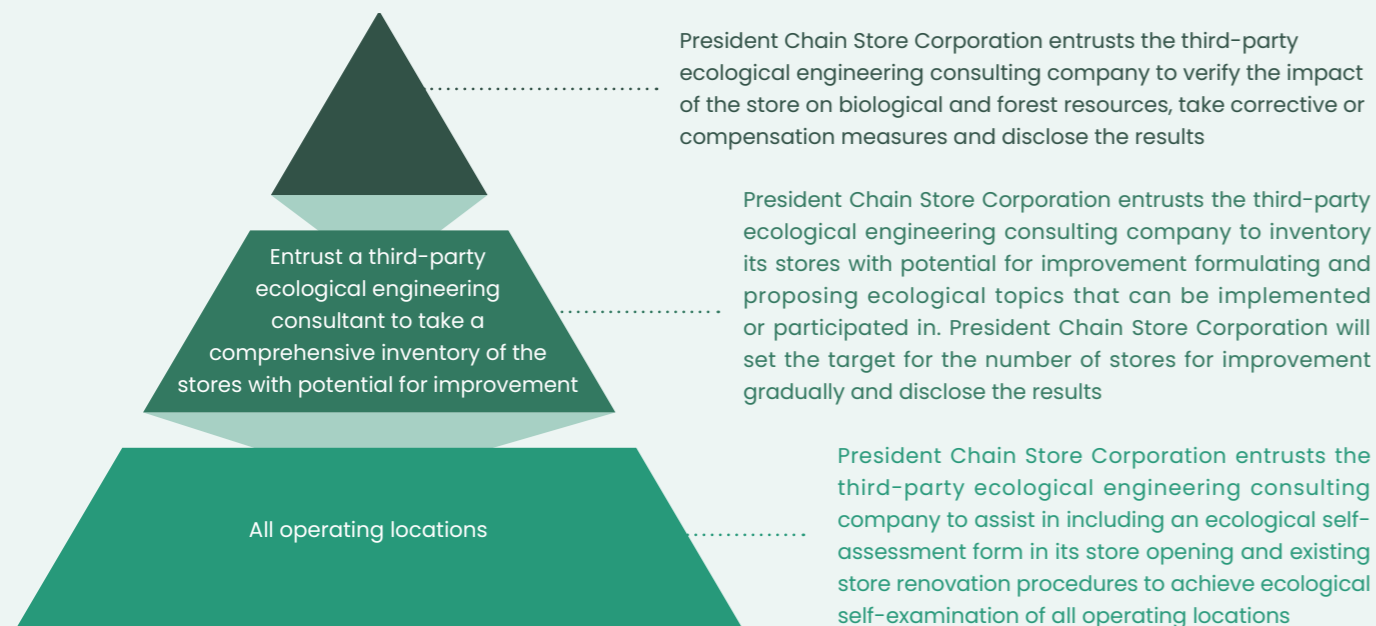
From 2022, President Chain Store Corporation passed the Biodiversity Policy and No Deforestation Commitment, promising all operating locations and its supply chain will follow the principles of biodiversity protection and no deforestation.

Items	Biodiversity
Scope	All operating locations and the supply chain
Target year	Complete the process formulation and degree of quantifiable impact by 2025
	Net Positive Impact by 2050
Execution Policies	Commitment to include a biodiversity assessment in the system
Principle	Conducting a biodiversity risk assessment for the value chain by following the mitigation hierarchy, covering operating locations, supply chain and partners (manufacturers and franchisees), as well as selecting material issues based on risk levels, set measurable management goals, take mitigation actions, as well as publicly disclose relevant results and share them with stakeholders.
	Requirement for the value chain to commit to avoiding operating activities in areas with important biodiversity at home and abroad. The value chain includes operating locations, supply chain, and partners (manufacturers and franchisees).
	Commitment to play an active role in the value chain of President Chain Store Corporation, covering operating locations, supply chain and partners (manufacturers and franchisees). In addition to entrusting a third-party ecological consulting company to assist in reducing damage to ecological resources with correction, minimization, or compensation measures, the goal of no net loss (NNL) is set in priority areas.
	Commitment to actively engage in biodiversity discussions with stakeholders to ensure that President Chain Store Corporation and all stakeholders move towards the goal of achieving a net positive impact by 2050.

Items	No Deforestation
Scope	All operating locations and the supply chain
Target year	Complete the process formulation and degree of quantifiable impact by 2025
	No Net Deforestation by 2035
	No Gross Deforestation by 2050
Execution Policies	Commitment to include a no deforestation verification mechanism in the system
Principle	Completion of inspections in order of levels and risks year by year with results published.
	Commitment to follow the principle of no net deforestation for our operating locations, areas adjacent to scope of our operations, supply chain, partners (manufacturers and franchisees) and stakeholder activities.
	Commitment that the Company will play an active role, participate in afforestation activities, and follow the principle of zero net deforestation.
	Commitment that the Company's operating locations and supply chain will meet the principle of zero gross deforestation by the target year.
	Commitment to engage in biodiversity discussions with stakeholders.

To effectively carry out actions towards biodiversity protection and mitigation, President Chain Store Corporation has set up our biodiversity risk assessment process. In 2023, we conducted a biodiversity risk analysis using the International Biodiversity Assessment Tool (IBAT). The results showed 10 stores located in nature reserves designated by the government, national parks, national natural parks or important wildlife habitats.

Level inventory



We follow four major mitigating principles when planning our actions towards biodiversity protection.



Mitigation Hierarchy	Performance in 2023
Avoid	President Chain Store Corporation has added an ecological self-assessment in the process of opening a new store, avoiding opening new stores in locations where the risks for biological resources are too high. This measure helps us identify and avoid potential risks for biodiversity in advance.
Reduce	President Chain Store Corporation evaluates site conditions of existing stores and plans to move existing stores to sites with lower impact on ecological resources or close stores to minimize the impact on ecology when necessary. If the leased location for a new store experiences ecological damage caused by an entity other than President Chain Store Corporation (for example, the land or building belongs to the landlord), the Company will intervene by inviting a third-party ecological engineering consulting company to assist in proposing improvement strategies during the construction stage to reduce damage to biodiversity.
Regenerate	President Chain Store Corporation invests in the "Sustainable Farm" program to recycle food waste from the stores, turn it into organic fertilizer for crops while promoting soil regeneration (for detailed management measures, please refer to the Sustainability Column - Sustainable Farm).
Restore	President Chain Store Corporation procures sustainable raw materials, such as FSC-certified paper packaging materials, coffee with rainforest certification, etc. This type of procurement not only ensures our raw materials have limited impact on the environment but also supports the recovery of the ecosystem for the raw material (for detailed management measures, please see 3.4 Sustainable Procurement).
Transition	President Chain Store Corporation continues to promote various transition programs to reduce the impact of its operations on the eco-system. In 2023, we collaborated with the industry, government and academia on a low-carbon rice project. Low-carbon rice planting can reduce water use for irrigation by 30% compared with conventional farming practices, as well as improving soil microbial diversity in rice fields (for detailed management measures, please refer to the Sustainability Column - Low-Carbon Diet).

4.2 Packaging Material Management

Policies and Commitments

As plastic is one of the most common choices among packaging materials in retail industry with its durability and low costs, the society has been closely examining the use of plastics in packaging and packaging materials at supermarkets, convenience stores and hypermarkets that are closely related to everyday lives. In 2022, a total of 175 countries around the world signed the Global Plastics Treaty to formulate specific and mandatory regulations for solving the problems of plastic waste in various countries from production, consumption to disposal, as well as gradually limiting and reducing the use of plastics.

To respond to the global trend in plastic reduction, stakeholders' concerns about plastic pollution and strengthen sustainable operations, President Chain Store Corporation hopes to strike a balance between convenience and environmental impact by committing to reducing plastic pollution in its own operations.

To this end, President Chain Store Corporation has planned ahead of the schedule for international conventions. It set up a Plastic Reduction Task Force in 2020 to formulate a comprehensive management policy for private-label product packaging materials to achieve a business model striving for plastic reduction and environmental protection from top to bottom. Starting from the private-label product, we actively carry out plastic reduction management actions, integrate various operations strategies such as products, services, logistics and e-commerce in order to achieve the vision of completely phasing out single-use plastics in our operations by 2050. For the detailed plastic reduction progress in 2023, please refer to [1.4 Process Management of Sustainable Targets](#).



The procurement of eco-friendly, certified packaging materials and lightweight packaging design should be prioritized in consideration of environmental and ecology protection, while achieving sustainable operations. A target for packaging reduction for private-label products has also been set.



Reduce the amount of single-use plastic at the source:

- The stores no longer offer customers straws. Without providing plastic net bags for free, plastic consumption reduced by 22.62 metric tonnes, resulting in a 94.61% reduction compared to 2022.
- Ice makers were introduced to reduce the amount of plastic packaging used for ice cubes. A total of 62.8 million plastic bags were reduced in 2023, the equivalent of 125.6 metric tonnes of plastic reduction.



President Chain Store Corporation worked with President Packaging Ind. Corp., an affiliated company, to establish and develop recycled cup renting services to transit from manufacturing single-use containers to developing reusable containers:

- Introduced the "OPEN iECO Recycled Cups Renting Service" as part of the recycling mechanism in compliance with regulations. 1,042 stores adopted the "OPEN iECO Recycled Cups Renting service" in 2023, exceeding our target of 1,000 stores. 18.90% of consumers brought their own cups, exceeding the annual target of 15.00%.
- We also encourage the consumers to use reusable packaging materials (or containers). A reward is also given for consumers who use their own reusable cups for fresh-brewed beverages. President Chain Store Corporation responded to the regulation in advance, bringing own reusable cup according to the regulations of the Ministry of Environment will entitle the customers to a discount of NT\$5. Moreover, on the first of each month, bringing own reusable cup for "CITY" brand fresh-brewed beverages will entitle them to an NT\$7 discount.



Packaging materials for cup sleeves and cup holders are made of recycled materials, with the cup sleeves consisting of 65% recycled paper and the cup holders consisting of 100% recycled paper.

- FSC-certified paper cups were introduced and used in retail stores in 2023.



President Chain Store Corporation has set up Plastic Reduction Task Force as an internal cross-functional team to consolidate the Company's efforts in plastic reduction. By combining the power of internal employees and external suppliers, the Plastic Reduction Task Force promotes packaging plastic reduction strategies, targets, and action plans, while holding regular meetings to ensure the progress of each actions. The task force took about NT\$2.5 million each year in manpower and testing resources, such as task force operations, R&D, testing costs in manpower and raw materials. The Plastic Reduction Task Force also stays on top of information on external competitiveness and the industry with the assistance of consulting company.

Plastic Reduction Task Force	Missions
Coffee Division	Reduce the packaging of fresh-brewed beverages, and introduce incentive scheme for reusable cups
Fresh Food Division	Reduce the weight of plastic used in fresh food packaging and increase the percentage of paper containers
Product Division	Introducing products with lightweight plastic containers
Marketing Division	Collaboration and communications with private-label suppliers, development of alternative materials and optimization of packaging weight reduction
Operations Division	In-store recycling mechanism optimization and store employees' awareness of plastic reduction build
Procurement Division	Procurement of store supplies, weight reduction for cutlery, development and introduction of alternative materials
Public Affairs Division	Internal and external communications, raising awareness for consumers
Human Resources Division	Internal education and training to increase the awareness of plastic reduction
Administrative Service Division	Internal plastic reduction action planning

Statistics of Packaging Material Consumption

Plastic Packaging Material

To enhance the efficiency of packaging material management, President Chain Store Corporation has redefined the classification of plastic packaging materials. Plastic consumption in each stage is inventoried for private-label products and services according to "usage" and "material." The performance and goal achievement is reviewed every quarter with corresponding plastic reduction action plans formulated.

Plastic Classification		Description
Usage	Reusable plastic	Packaging that can be refilled or reused for the same purpose without ancillary products after cleaning. They can circulate on the market to make the packaging reusable and refillable
	Single-use plastic	Plastic packaging that is single-use or for short-term use, and not reusable ^(Note 1)
Material	Recyclable plastic	Recyclable plastics as defined by the Ministry of Environment ^(Note 2)
	Compostable/decomposable plastic	Compostable and technically recyclable plastic packaging has been developed
	Plastic with recycled content	Plastic products containing recycled plastic
	Other plastic	Plastics that cannot be recycled, composted/decomposed or without recycled content

(Note 1) Even if the garbage bags in the stores and plastic straws are made of recycled materials, they are still considered as single-use plastics.

(Note 2) The Ministry of Environment defines recyclable plastics as PET, PVC, PE, PP, PS, unexpandable PS and others. If the material itself is recyclable without having obtained the recycling label from the Ministry of Environment, or if it cannot be properly recycled in the current waste disposal system, it is not considered as recyclable.

President Chain Store Corporation has publicly announced a phased reduction targets for “single-use plastics,” with the proportion of “other single-use plastics” being less than 20% in 2023, 10% by 2028 and completely eliminated by 2050. The total plastic packaging materials consumed by President Chain Store Corporation in 2023 was 10,292.92 metric tonnes, an increase of 1.2% compared to 2022. The consumption of “recyclable plastics” increased by 5.3% compared to 2022, mainly due to the increase in sales of coffee and other fresh food products. The consumption of “plastic with recycled content” increased by 15.6% compared to 2022, mainly due to the increase in the number of stores and garbage bags consumption. “Compostable/decomposable plastics” will be phased out in compliance with regulations starting from 2022 on PLA cups for cold beverages, as well as the PLA material of tea egg cartons gradually replaced by recyclable PET material in 2023. The overall consumption decreased 51.8% compared to last year, as well as increasing the amount of recyclable plastics. “Other single-use plastics” accounted for 22.47% of the total plastic consumption in 2023, mainly due to the increase in the consumption of shopping bags and cutlery due to the increase in customers. However, it is still higher than the 20% target. We will continue to monitor the consumption of single-use plastics and implement improvement measures. Please refer to the “[Plastic Reduction Management Actions](#)” paragraph for detailed management measures.

Changes in Plastic Packaging Material Consumption for President Chain Store Corporation’s private-label products from 2022 to 2023

Plastic Classification	Weight (Metric Tonnes)		Differences between the Two Years	
	2022	2023		
Usage	Reusable plastic	420.03	22.62	-94.6%
	Single-use plastic	9,748.37	10,270.30	5.4%
Material	Recyclable plastic	7,040.76	7,410.76	5.3%
	Compostable/decomposable plastic	193.53	93.24	-51.8%
	Plastic with recycled content	392.33	453.65	15.6%
	Other plastic	2,541.77	2,335.26	-8.1%
Total Weight		10,168.40	10,292.92	1.22%

Non-plastic Packaging Materials

President Chain Store Corporation strives to reduce the consumption of plastic packaging materials for private-label products and services, as well as looking to incorporate non-plastic packaging materials with sustainability certification. In line with President Chain Store Corporation’s Sustainable Procurement Policy, the targets for private-label products packaging by paper materials with sustainability certification have been set for 2030 and 2050 to reach 70% and 100%, respectively. We also continue to work towards getting sustainably-certified materials for paper bowls and cup sleeves used in the stores. In 2023, the consumption of non-plastic packaging materials (including paper/wood, metal) increased by approximately 5.2% compared with 2022, mainly due to the increase in coffee sales increasing the consumption of paper cups and outer packaging for coffee beans. In addition, the increase in fresh boxed meal sales has also increased the consumption of paper box packaging materials.

Statistics of Packaging Material Consumption in Each Life Cycle Stage for Private-label products and services in 2023

The Life Cycle Stage of Private-label Products and Services		Manufacturing and Production	Supplier/Manufacturer	Logistics Delivery to Stores	Store Sales and Services	Total Weight (Metric Tonnes)
Packaging Material		● Fresh food packaging, fresh-brewed beverages supplies, cutlery	● Fresh food sealing film	■ Delivery cartons	● Store supplies, such as shopping bags, cutlery, “MyShip”/E-commerce packaging, tapes, buffer packing material, store garbage bags, etc.	
		◆ Outer packaging for coffee and tea	■ Box packaging, paper container for fresh food	● Shipping film	■ Online shopping center distribution cartons, “MyShip” boxes, fresh food cartons, paper bowls and store supplies	
Classification		Weight (Metric Tonnes)				10,292.92
Usage (Plastic)	Reusable plastic	0.00	0.00	0.00	22.62	
	Single-use plastic	6,453.99	0.00	25.97	3,790.34	
Material (Plastic)	Recyclable plastic	5,685.60	0.00	0.00	1,725.17	10,292.92
	Compostable/decomposable plastic	93.24	0.00	0.00	0.00	
	Plastic with recycled content	0.00	0.00	0.00	453.65	
	Other plastic	675.15	0.00	25.97	1,634.14	
Material (Others)	Paper/wood	1,142.88	855.22	366.44	9,770.61	12,135.15
	Metal	274.87	-	-	-	274.87

● Plastic ■ Paper/Wood ◆ Metal (composite material)

(Note 1) The scope of statistics includes the packaging of private-label products of President Chain Store Corporation and the items sold and serviced in the store (in addition to the outer packaging of the items, the materials used for the items and the packaging used for logistics and distribution are also included). The statistics of plastic packaging materials cover 100% of private-label products. The statistics of non-plastic packaging materials cover 100% of private-label products.

(Note 2) The inventory of paper/wood includes the statistics of general cartons, paper containers with coating, as well as materials for cutlery packaging and content for store supplies.

Plastic Reduction Management Actions

President Chain Store Corporation has engaged in three aspects to reduce plastic, including “reduction at the source,” “innovative packaging” and “encouraging customers to bring their own containers” since 2019. The Plastic Reduction Task Force was set up in 2020 to integrate strategies related to plastic reduction. We have started with the reduction of single-use plastics in private-label products and services, redesigned product packaging to reduce plastic consumption, introduced certified paper materials and recycled plastics, as well as reducing single-use containers by offering discounts for customers. In addition, President Chain Store Corporation integrated Group resources to set up the “OPEN iECO Recycled Cups Renting Service” in 2022. By the end of 2023, a total of 1,042 stores have been incorporated with the hope of providing convenient services while working towards environmental protection.

2019

- All fresh-brewed beverages in the stores adopted paper cups with strawless sip-lids
- All stores stopped offering plastic straws

2021

- Launch of lightweight and reusable shopping bags
- Redesign of the packaging of fresh food such as rice served with meat on top, cold noodles, hot dog buns, etc. to make it lighter
- All garbage bags used in stores are made of 100% recycled materials
- “Unlabeled mineral water” was launched in collaboration with Uni-President Enterprises Corporation
- Launch of circular packaging used for e-commerce in collaboration with the social enterprise PackAge+
- The reward for bringing your own cup on the 1st of every month increased from NT\$3 to NT\$5
- President Chain Store Corporation recycled PET bottles and empty milk bottles to be made into handmade drink carriers and newsboy bags by Story Wear

2023

- Ice makers have been expanded to 2,457 stores
- “OPEN iECO Recycled Cups Renting Service” introduced to over 1,000 stores
- Packaging for two salads was replaced with certified rPET

2020

- President Chain Store Corporation set up the “Plastic Reduction Task Force” to formulate and manage plastic reduction actions
- President Chain Store Corporation announced its long-term plastic reduction goal to “completely eliminate other single-use plastics by 2050.”
- Launched the “Packaging Material Weight Reduction Project” to promote lightweight fresh food packaging
- Launched the “Cups for Rent Project” in collaboration with the social enterprise Good to Go
- Pilot program for recycling PET bottles with the “Automatic Recycling Machine”

2022

- Redesigned sandwich packaging to reduce plastic consumption by approximately 12.5% on average
- Produce planting bags were replaced by kraft paper bags, reducing approximately 0.96 metric tonnes of plastic
- Fresh food packaging such as tea egg bags, Oden bowl lids and disposable tableware were resigned to be lightweight
- Ice makers were introduced into 750 stores to reduce the consumption of packaged ice cubes
- “Intelligent Automatic Recycling Machine” introduced to recycled PET bottles and batteries in the stores
- President Chain Store Corporation integrated group resources to introduce “OPEN iECO Recycled Cups Renting Service” to 500 stores

Single-use Plastic Reduction

Plastic Reduction for Product Packaging

President Chain Store Corporation are committed to reducing the burden on the earth from product packaging. Since 2019, President Chain Store Corporation has been working on reducing the environmental impact by expanding the use of recycled plastics and continuous promotion of the “Packaging Material Weight Reduction Project.” In 2022, the plastic packaging material for our sandwiches was redesigned with a weight reduction of 12.5%. Moreover, we worked together with Uni-President Enterprises Corporation to launch the label-free bottled water, reducing plastic consumption by 0.46 tonnes compared to regular bottled water. In 2023, roughly 592,000 reusable shopping bags were sold, estimated to reduce plastic consumption by 4.47 tonnes. In the future, we will continue to reduce the consumption of single-use plastic.

In recent years, President Chain Store Corporation has actively collaborated with suppliers on ways to reduce plastic in fresh food packaging materials. We increased paper packaging for boxed meals in 2023, reducing approximately 894 metric tonnes of plastic. In 2024, we will further replace lids of boxed meals with sealing films. Moreover, recycled PET (rPET) made from recyclable materials such as PET bottles has been adopted in two fresh salad packaging containers. We continue to source new composite paper materials to reduce the use of plastic packaging materials for fresh food.



Plastic Reduction for Store Services



To further reduce plastic consumption in the stores, President Chain Store Corporation actively followed regulations from the Ministry of Environment in 2023 to ensure the stores comply with the rule of not offering disposable cutlery, as well as adopting more lightweight packaging for fresh food cutlery. Starting from 2022, we reduced plastic consumption by 28% for each fork and 15% for each spoon. In 2023, the average monthly weight of cutlery used in a single store decreased by 30% compared to the year before. In addition, President Chain Store Corporation started introducing ice makers in the stores in 2022 to reduce packaging materials used for ice cubes in fresh-brewed beverages. In 2023, the ice makers were introduced to a total of 2,457 stores, reducing a total of 125.6 metric tonnes of single-use plastic. We will continue to move towards the goal of introducing ice makers to all stores in the future. President Chain Store Corporation switched to the users pay approach for coffee and fresh food net bags at the end of 2022 with a significant impact on reducing the number of net bags consumed by 94.61%. In addition, starting from 2023, film sealing machines were gradually introduced in stores to reduce the consumption of single-use cup lids. In comparison with a cup lid, the film is expected to reduce plastic consumption by 53.62%.

Packaging Recycling and Reduction for E-commerce Orders

In 2022, President Chain Store Corporation reduced the weight of the “MyShip” delivery bags (by about 14.86% per piece), as well as developing and using decomposable materials for delivery bags. In 2023, these delivery bags reduced plastic consumption by approximately 2.58 metric tonnes compared to the year before, with the proportion of biodegradable materials reaching 10.86%. In addition to reducing the weight of the delivery bags, President Chain Store Corporation also optimized the service process by incorporating the OPENPOINT app. Traditional barcode slips were replaced by mobile phone barcodes, and the label sticker replaced the document holder bag to reduce the consumption of unnecessary paper and plastic. In 2023, these measures reduced the consumption of paper by 18.9 metric tonnes of paper and 18.06 metric tonnes of single-use plastic.

President Chain Store Corporation continues to work with social enterprise PackAge+ to launch “circular packaging recycling stations,” encouraging consumers to return circular packaging bags to 20 President Chain Store Corporation stores, reducing resource consumption through recycling. Starting June 2022, President Chain Store Corporation has been working with Gamania Digital Entertainment Co., Ltd. on customer gifts. The customers who receive gifts can recycle circular bags in our convenience stores, thus upgrading the recycling service.



Expansion of the Recycling Mechanism

In response to the international ESG trend, the demand for renewable resources will increase year by year. The global plastic consumption has increased since the post-pandemic period. Some European countries have started planning to tax disposable or non-reusable plastic products from 2022, meaning disposable plastic will eventually phase out and become recyclable. Plastic wastes that are challenging to be regenerated with the current recycling mechanism are expected to become resources in the future. To stay updated with the trend, automatic recycling machines were gradually introduced to the stores in 2020, and the Intelligent Automatic Recycling Machine that can recycle PET bottles and batteries were incorporated in 2022. The scale was further expanded in 2023 with 140 stores adopting the machine, recycling a total of 7.912 million PET bottles and 2.748 million batteries. For further details, please refer to the section on ["Intelligent Automatic Recycling Machine" in the sustainability column.](#)

Reducing Disposable Containers – Bring Your Own Cups and Reusable Cups

Reuse is the fundamental measure of reducing the amount from the source. President Chain Store Corporation encourages consumers to contribute to environmental protection by providing cups on loan, cups for on-the-spot consumption, and a discount for consumers who bring their own cups. The measures are rely on the member barcode in the "OPENPOINT" app. A pre-paid fee is charged when renting a recycled cup. If the cup is not returned in time, the pre-paid fee will be automatically deducted to make sure customers return the cups to make the service sustainable. Since 2022, in response to the increased awareness of plastic reduction and regulations, President Chain Store Corporation integrated group resources to set up the OPEN iECO Recycled Cups Renting Service. In 2023, the recycled cups renting service has been adopted by over a thousand stores as the renting serve of the largest scale provided by one single channel. The service has also gradually adopted "OPEN iECO Recycled Cup Lids" in certain stores prior to the promulgation of the Ministry of Environment regulations, hoping to make both cups and lids recyclable. To make OPEN iECO Recycled Cups Renting Service even more user-friendly, consumers can rent the cups in one store and return them to another. For further details, please refer to [the Recycled Cup Life Circle Service section in the sustainability column.](#)

4.3 Climate Change Mitigation and Adaptation Management

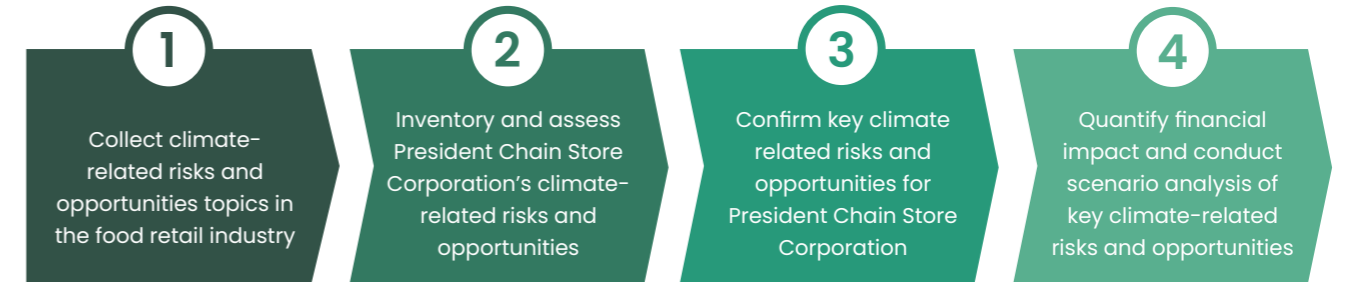
Facing the global challenges brought about by climate change, President Chain Store Corporation actively responds and adapts to the impact of climate change, not only embodying our environmental responsibilities but also ensuring the key to sustainable development.

Climate Governance

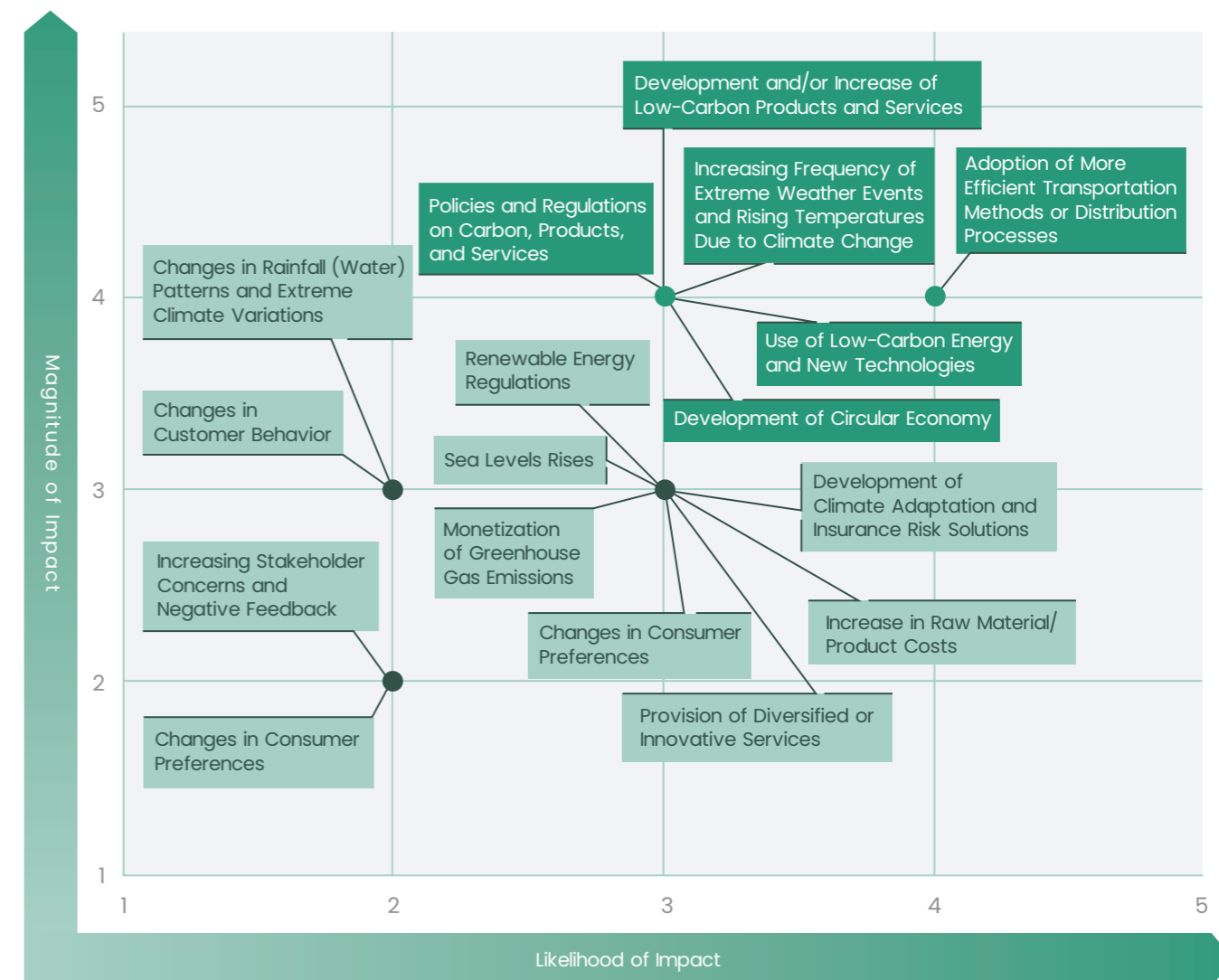
Based on this concept, we respond to domestic and foreign climate initiatives, commit to abiding by the principles of the Paris Agreement to limit global temperature rise to a maximum of 1.5°C above pre-industrial levels, as well as declaring our support for Taiwan's Pathway to Net-Zero Emissions in 2050. To this end, we follow the PDCA cycle to formulated a net-zero transition plan for President Chain Store Corporation and developed a comprehensive climate governance structure, so as to gradually make our pathway to net-zero emissions a reality and exert a positive influence. President Chain Store Corporation's governance structure of climate change issues has the Board of Directors as the highest governing body, with the Sustainable Development Committee underneath supervising and reviewing climate-related issues. The Carbon Reduction Task Force is the organization dedicated to assessing and managing climate change risks and issues. The Task Force plans relevant actions and reports progress to the Sustainable Development Committee. The Task Force is convened by member of the Sustainable Development Committee, with task forces specific to each department's functions. Please refer to the President Chain Store Corporation Climate-related Disclosures Report for more details.

Assessment for Climate Risks and Opportunities

To understand the impact of climate change issues on the operations of President Chain Store Corporation, we have re-assessed major risks and opportunities this year based on the following procedure. Three major risks and 3 major opportunities were sorted from the process. Please refer to the President Chain Store Corporation Climate-related Disclosures Report for details on the identification process.



統一超商氣候風險與機會



Results of Impact Assessment of Major Climate Risks and Opportunities

Description of Impact from Major Climate Risks

Category	Description	Timeline	Impact on Value Chain	Impact Assessment on Operations and Finances
Transitional risk	Low carbon energy and new technologies In response to international net-zero trends, Taiwan's Climate Change Response Act, and the increase in electricity prices, businesses are gradually moving towards the use of low-carbon energy. President Chain Store Corporation operations primarily rely on electricity usage in our stores. However, the transition to low-carbon energy is constrained by the business nature and operational model of President Chain Store Corporation. The initial investments required may incur substantial costs, potentially posing risks to the operations of President Chain Store Corporation.	Long-term	Own operations	<ul style="list-style-type: none"> In the future, President Chain Store Corporation may be impacted by rising electricity costs, leading to increased operating expenses. Investing in renewable energy equipment and purchasing green electricity will also contribute to higher operating expenses.
Physical risk	The number of extreme weather events and temperature continue to increase with climate change The temperature continuing to rise and extreme weather events such as droughts, floods, typhoons or landslides occurring more frequently could cause: <ul style="list-style-type: none"> Damage to President Chain Store Corporation's equipment Road disruptions will increase, causing interruptions in product transportation and supply. Changes in the sales of seasonal products will affect the product revenue in specific seasons. 	Long-term	Upstream, own operations, downstream	<ul style="list-style-type: none"> Implementing management measures in response to extreme weather events will lead to increased operating costs. Damage to store equipment and interruptions in product supply will also increase capital expenditures and impact revenue. Climate change causing changes in the sales performance of seasonal products may affect the revenue from these seasonal products.

Category	Description	Timeline	Impact on Value Chain	Impact Assessment on Operations and Finances
Transitional risk	Policies and regulations concerning carbon, products, and services. <ul style="list-style-type: none"> Taiwan's Climate Change Response Act has been amended and is expected to impose carbon fees on major carbon emitters starting in 2025. Although the current regulations do not yet cover the residential and commercial sectors, with the government's policies moving towards net-zero emissions, President Chain Store Corporation may be subject to carbon fees in the future. Considering operational growth, this could potentially bring significant financial impact. In response to global plastic reduction trends and Taiwan's related regulations, such as the ban on single-use straws, incentives for customers who bring their own cups, and requirements for stores to gradually increase the proportion of reusable cups, President Chain Store Corporation is already impacted by plastic reduction regulations. The company has been actively taking measures to comply with these regulatory requirements. 	Mid-term	Own operations	<ul style="list-style-type: none"> If President Chain Store Corporation fails to comply with regulatory requirements, it may face government fines or fees, leading to increased operating costs. To provide reusable cup services, the company will need to invest in system development and the procurement of reusable cups, which will incur capital expenditures and operating costs. Additionally, maintaining the operation of reusable cups will require extra investments in cleaning, logistics, and manpower, thereby increasing management costs.

Description of Impact from Major Climate Opportunities



Category	Description	Timeline	Impact on Value Chain	Impact Assessment on Operations and Finances
Resource efficiency	Adopting more efficient shipping methods or distribution processes Choosing energy-efficient vehicles and optimizing routes to reduce transportation or distribution costs.	Short-term	Upstream and downstream	Adopting efficient transportation methods or distribution processes will reduce fuel and labor costs, thereby reducing operating costs. However, this may also increase costs for vehicle replacement and R&D.

Description of Impact from Major Climate Opportunities

Category	Description	Timeline	Impact on Value Chain	Impact Assessment on Operations and Finances
Products and services	Develop and/or increase low-carbon products and services	Short-term	Own operations and downstream	<ul style="list-style-type: none"> Increasing the range of low-carbon products and services can boost consumer purchasing intent, thereby enhancing revenue. Developing low-carbon products and services will require additional investments in research and development, as well as management costs.
	Incorporation of circular economy	Short-term Mid-term	Down-streams Own operations	<p>Recycled Cup Service</p> <ul style="list-style-type: none"> Reduces the use of single-use paper cups for freshly prepared beverages, thereby lowering material procurement and other operational costs. Offers price discounts to encourage consumer behavior change, attracting more consumers and subsequently increasing revenue from freshly prepared beverage products. <p>Efficient Smart Recycling Machines</p> <ul style="list-style-type: none"> The rewards for recycling PET bottles provided by efficient smart recycling machines increase the likelihood of consumers spending at President Chain Store Corporation, leading to revenue growth. Recycled PET bottles (rPET) can be transformed into marketable products, further driving revenue growth. <p>iLove Food and Sustainable Farms.</p> <ul style="list-style-type: none"> Promoting iLove Food products reduces the weight of food waste disposal, thereby lowering waste disposal costs and increasing revenue from fresh food products.

Climate Adaptation and Transition Strategies

President Chain Store Corporation identifies climate-related risks and opportunities across the entire value chain. However, we realize that the risks and opportunities faced by each stage of the value chain are not the same. To this end, we have integrated major climate risks and opportunities into two main themes, including net-zero transition and climate adaptation. We target financial impact and management costs by doing quantitative analysis on risks and opportunities to understand their impact on President Chain Store Corporation operations. Our action plans and summary of implementation are as follows. Please refer to the President Chain Store Corporation Climate-related Disclosures Report for details on the identification process.

Climate change response strategies	Value Chain Action Plan		
	Upstream	Own Operations	Downstream
 Energy transition	Setting energy efficiency specifications for store equipment procurement	<ul style="list-style-type: none"> Introducing renewable energy with the photovoltaic system generating a total of 3,000 kWh of electricity in 2023 Introducing the energy management system Introducing 7 energy-saving measures in the stores with a total of 420,257 GJ saved in 2023 Coaching for stores with high electricity bills Introducing energy-saving measures in the headquarters building 	<ul style="list-style-type: none"> Encouraging consumers to reduce the consumption of paper and plastic cups through recycled cups service Encouraging consumers to recycle PET bottles through efficient PET bottle recycling machines and incentive mechanisms Sharing knowledge on carbon reduction, plastic reduction, food waste etc. through Good Neighbor Funfest to communicate President Chain Store Corporation's sustainability philosophy with consumers
	 Industrial Transition	<ul style="list-style-type: none"> Requiring affiliated logistics companies to optimize routes Requiring affiliated logistics companies to purchase new vehicles with high energy efficiency Requiring affiliated logistics companies to save energy and reduce carbon emissions in logistics centers, with a total energy saving of 4,350 GJ in 2023 Purchase low-carbon raw materials such as FSC, low-carbon rice, etc. 	<p>Selling low-carbon products such as Veggie Selection, low-carbon rice and fresh boxed meal with paper packaging</p> <ul style="list-style-type: none"> Participating in the Ministry of Economic Affairs' "Micro-carbon Offset" initiative to conduct lighting tests at 4 stores in Taipei City. The lamps were replaced with LEDs. The external verification unit BSI was entrusted to verify the amount of carbon reduction and before submitting to the Environmental Protection Administration for review in line with relevant guidelines


Climate change response strategies	Value Chain Action Plan		
	Upstream	Own Operations	Downstream
 Lifestyle Transition	<ul style="list-style-type: none"> Managing food waste at the manufacturers to reduce wasting raw materials Using rPET for food containers Converting food waste into organic fertilizer through sustainable farming practices to be used for contract agricultural products 	<ul style="list-style-type: none"> Reducing fresh food scraps in the stores with iLove Food to increase revenue Increasing consumers' willingness to spent at the stores and further increasing revenue through incentive mechanism for circular economy services, including recycled cups service and efficient PET bottle recycling machines 	<ul style="list-style-type: none"> Participating in the Ministry of Interior's "Store Energy Consumption Classification" program to support the government's building energy conservation and carbon reduction policies, as well as becoming the first convenience store to receive the "Nearly Zero-Carbon Building" label issued by the Ministry of Interior Participating in the Environmental Protection Administration's "Plastic Reduction" & "Guidelines for Best Practice Regarding Circular Cups" programs and actively promoting plastic reduction actions Taking part of the Society of Wilderness' "Earth Hour" initiative
 Climate Adaptation	<ul style="list-style-type: none"> Understanding the quality and supply of each raw material, actively developing diverse and alternative material sources to ensure smooth operations of the supply chain 	<ul style="list-style-type: none"> Formulating "Construction Specifications for Flood Control Gates and Dwarf Walls in the Stores Located in Low-lying Areas" Setting up the "Weather Information Distribution System" to immediately notify the stores of the weather and issue flood warnings, so as to reduce the risks caused by flooding Formulating emergency response procedures for risks, standardizing the logistics and distribution contingency mechanisms, and purchasing property insurance against natural disasters for the stores to reduce the financial impact of losses In response to the rising temperature, President Chain Store Corporation actively introducing energy-saving measures in the stores and headquarters to optimize energy efficiency 	<ul style="list-style-type: none"> Participating in the Ministry of Interior's "Store Energy Consumption Classification" program to support the government's building energy conservation and carbon reduction policies, as well as becoming the first convenience store to receive the "Nearly Zero-Carbon Building" label issued by the Ministry of Interior Participating in the Environmental Protection Administration's "Plastic Reduction" & "Guidelines for Best Practice Regarding Circular Cups" programs and actively promoting plastic reduction actions Taking part of the Society of Wilderness' "Earth Hour" initiative

Store and Logistics Energy Conservation and Carbon Reduction Actions

In order to effectively improve the energy efficiency of stores, President Chain Store Corporation has formulated basic requirements for equipment and store environment management for new stores by incorporating 7 energy-saving designs such as heat insulation, energy-saving signboards, lamp reduction, reduction of window area, frequency conversion system and LED lamps, and indoor lighting management, and energy-saving windbreak rooms as well as introducing the energy-saving windbreak room depending on the stores. Existing stores actively evaluate the feasibility of introducing various

energy-saving measures and gradually replace high-efficiency equipment. In 2023, President Chain Store Corporation stores successfully saved 116,738,104.52 kWh of electricity through the energy-saving program, the equivalent of 57,669 metric tonnes of CO₂e direct emissions. In addition to the replacement of energy-saving equipment, all store employees have been trained to conduct regular inspections on air-conditioning, circulation fans, lighting, refrigerators and freezers, signboard windows and other equipment in accordance with the "Self-Inspections on Store Energy-Saving" to ensure that the equipment can maintain efficiency. We also cooperate with the government and relevant academic institutions to improve the energy efficiency of our stores.

President Chain Store Corporation's commitment to energy conservation and carbon reduction extends beyond its operations. In order to take advantage of opportunities brought by the climate and low carbon, we also actively influence long-term affiliated logistics partners to gradually invest in corresponding management plans or actions. Various energy-saving and carbon-reduction methods have been adopted to improve energy efficiency and reduce environmental impact, as well as continuously adapting operations strategies so as to respond to the needs of low-carbon operations and increasing the positive benefits brought about by addressing climate change issues in a timely manner. For detailed information on energy conservation and carbon reduction in our stores and logistics network, please refer to President Chain Store Corporation Climate-related Disclosures Report .

	Store Energy-saving Actions	Quantity in 2023	Energy Saved (kWh)	GJ Energy Saved (GJ)	Greenhouse Gas Emission Reduction (Metric tonnes of CO ₂ e)	Contribution to Energy-Saving Project Results
Inverter system	Inverter air-conditioning	2,944	63,266,265	227,759	31,254	54.82%
	Third-generation combination refrigerator	1,534	26,164,367	94,192	12,925	22.67%
	New energy-saving freezer	219	687,346	2,474	340	0.60%
Reduction in lamp number, LED lamps and indoor lighting management	Arcade lighting energy-saving upgrade	22,789	14,929,653	53,747	7,375	12.94%
	Lighting upgrade in stores	17,715	4,864,660	17,513	2,403	4.22%
Energy saving for signboards	Energy-saving improvement of horizontal signboard	21,939	6,194,325	22,300	3,060	5.31 %
Improve heat exchange environment	Energy-saving windbreak room	111	631,489	2,273	312	0.55%
Total		67,251	116,738,105	420,257	57,669	100.00%

(Note 1) The calculation of carbon reduction is based on the latest announced 2023 electricity emission factors for determining the amount of emissions reduced.
 (Note 2) The annual energy saving of each program is estimated by multiplying the measured value before and after the improvement of a single equipment by the total number of equipment replacements.

Logistics Company	Energy-saving Action	Amount of Energy/Resource Saved	Amount of Energy Saved (GJ)	Greenhouse Gas Emission Reduction (metric tons of CO ₂ e) ^(Note 2)
UPCC	Replacement of 208 LED lamps and 18 Inverter air conditioners	32,017	1,153	16
Retail Support International	Replacement of air conditioners/shut down pending replacement	47,426	1,707	23
Wisdom Distribution Service Corp.	Installed 45 large MagLev fans to replace traditional industrial ones, adjusting the timings and ways of using water chillers at the bases	1,281,232	1,490	633
Total		1,360,675	4,350	672

(Note 1) Each replaced lamp is estimated to save 24 kWh of electricity for UPCC, calculated based on the daily time of use at the locations 365 days a year. The 26 air-conditioners are expected to save consumption by 70kWh, calculated based on 6 hours of use a day and 365 days a year.

(Note 2) Retail Support International corp replaces old air conditioning equipment and calculates the energy savings based on the difference in energy usage before and after replacing and decommissioning the air conditioning units. The formula for calculating energy usage is:
Energy Usage = Number of Units * Hours of Use * Usage Rate * Number of Months.

(Note 3) Wisdom Distribution Service Corp. replaced traditional industrial fans with 45 large MagLev fans in distribution centers located in Shulin, Yangmei, Dadou and Benjhou. The statistics is calculated based on the daily time of use at the locations 365 days a year.

(Note 4) The calculation of carbon reduction is based on the latest announced 2023 electricity emission factors for determining the amount of emissions reduced.

Key Performance Metrics and Targets

Greenhouse Gas Emissions

President Chain Store Corporation's main business locations include stores (including retail stores and shopping centers) and offices (including the headquarters, regional offices and training centers) around Taiwan and on outlying islands. We have conducted greenhouse gas inventory in line with ISO 14064-1:2006 since 2017 to stay updated with the overall greenhouse gas emissions. In 2020, we adopted the updated ISO 14064-1:2018 as reference for greenhouse gas inventory as well as passing third-party certification. We have also continued to expand the scope of sites on inspection. The scope of the greenhouse gas inspections in 2023 covered 7,009 bases, with the coverage rate of 99.45% for the greenhouse gas inspection boundary.

Operating Locations with ISO 14064-1:2018 Certification in 2023

Stores (convenience stores and shopping centers)	Offices and training center	7,009 operating locations in total
6998	11	

(Note) The 6,980 stores inventoried in 2023 include the 137 stores that have moved or closed in 2023.

Type of Emissions	Description	Volume (Metric Ton of CO ₂ e)
Direct Emissions (Scope 1)	Refrigerant, marsh gas, company vehicles, CO ₂ for beer on tap	30,177.03
Indirect Emissions (Scope 2)	Electricity consumed by stores, the headquarters, shopping centers and regional offices, training center	513,790.60
Indirect Emissions (Scope 3)	Procurement of upstream commodities, gas used for deliveries by the logistics center, waste disposal in stores and the headquarters, power loss during power distribution and disposal of product packaging materials	4,556,627.93
Total Greenhouse Gas Emissions		5,100,595.56

(Note 1) Greenhouse gas inventory adopts the ISO 14064-1:2018 methodology. The organization boundary is set using operational control. The greenhouse gas emission coefficient refers to USEEIO, Electricity Emission Coefficient set by the Bureau of Energy of the Ministry of Economic Affairs, Environmental Protection Administration's Emission Coefficient Management Table 6.0.4 and the Environmental Protection Administration's Product Carbon Footprint Information Network. GWP adopts AR6 values.

(Note 2) The calculation for indirect emissions from purchased electricity is based on location. Since the grid emission coefficient for 2023 has not been announced, the coefficient of 0.495 kg CO₂e/kWh in 2022 is adopted as the calculation parameter.

(Note 3) The types of greenhouse gas covered by the inventory include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆) and nitrogen trifluoride (NF₃).

(Note 4) The carbon dioxide emissions from biological sources are zero.

Direct Emissions

The main source of direct emissions from President Chain Store Corporation is the refrigerant leaked from store freezing, refrigeration and air-conditioning equipment. The emissions are calculated based on the refrigerant refill of the equipment warranty system for the refrigerant equipment failure maintenance. The result accounted for 90.87% of the direct emissions, with the proportion of refrigerant not containing ozone-depleting refrigerant as 100%.

Indirect Emissions

The 2023 indirect emissions survey was evaluated in accordance with the principle of materiality. Significant indirect greenhouse gas emission sources include indirect greenhouse gas emissions from purchased electricity, upstream emissions, cargo distribution and waste treatment. Among them, the emission of purchased electricity is the main source of indirect greenhouse gas emissions.

The greenhouse gas inventory shows total purchased electricity used by all the inventoried operating locations in 2023 was 103,796 kWh, resulting in indirect greenhouse gas emissions of 513,790.60 tonnes of CO₂e, an increase of 1.8% compared to 2022 emissions. The amount of purchased electricity increased by 4.7% compared to 2022, mainly due to 349 new stores and additional freezers, electronic displays, and ice makers in response to changes in the customers' shopping habits during COVID-19 pandemic. President Chain Store Corporation will continue to promote energy saving in stores and offices, carbon reduction in logistics and transportation, as well as evaluating the expansion of photovoltaics or the purchase of renewable energy so as to gradually achieve the reduction target for 2025.

Indirect Emission Source		Indirect Emissions (Metric Tons of CO ₂ e)	Percentage of Indirect Emissions (%)
Electricity	Emissions from purchased electricity ^(Note)	513,790.60	10.13%
	Upstream emissions from purchased electricity	101,041.71	1.99%
Purchased products	Emissions from purchased products	4,368,313.78	86.15%
Emissions from upstream transportation and distribution of goods	Diesel used for transportation from the logistics center to the stores	59,944.46	1.18%
Emissions from solid and liquid waste disposal	Waste disposal in the stores	17,843.10	0.35%
Emissions from business trips	Emissions from transportation during employee business trips	1,863.80	0.04%
Emissions from employee commute	Emissions from transportation during employee commutes	6,532.63	0.13%
Emissions from end-of-life stage of products	Disposal of packaging materials	1,088.45	0.02%

(Note) 100% of purchased electricity comes from electric grid.

Energy Use

The President Chain Store Corporation Yawan store opened its doors in 2023, with renewable energy integrated into the store design. The photovoltaic system was incorporated to increase the use of renewable energy in the future. A total of 3,000 kWh of electricity was generated in 2023.

In 2023, the total electricity consumption of all the inspected locations reached 103,796,000 kWh, with the 3,737,432.37 GJ energy consumption. Purchased electricity accounts for 99.93%. As for the upstream transportation, energy consumed for diesel used for distribution and transportation from the logistics center to the stores, totaling 18,055,560.40 liters of diesel, the equivalent of 635,028.50 GJ.

Energy-consuming Equipment	Source of Energy	Energy Consumption (GJ)	Consumption	Percentage of Energy Use	Energy-consuming Equipment
Gas used for company cars	Gas	79.68	liters	2,600.27	0.07%
Electricity consumed by operating locations	Purchased electricity	103,796	kWh	3,734,832.10	99.93%
Total Energy Consumption				3,737,432.37	100.00%

Energy Efficiency Indicators and Targets

Since most stores are open around the clock, their electricity consumption pattern is different from that of the headquarters, regional offices and training center. To effectively monitor the electricity consumption of stores and gradually improve their energy efficiency, we set up an EUI and reduction targets for stores as well as tracking the progress each month.

The electricity intensity reduction target for stores in 2023 was 829.0 kWh/m², a decrease of 0.5% compared to 2022. The actual energy intensity of our stores was 827 kWh/m² in 2023, showing a 0.81% decrease from 2022. We have reached our energy intensity reduction target this year.

Year	EUI ^(Note)							
	2016	2017	2018	2019	2020	2021	2022	2023
EUI	1,011	1,008	962	947	919	891	833	826
Percentage of Decrease	-3.35%	-0.30%	-4.56%	-1.56%	-2.96%	-3.05%	-6.46%	-0.81%

(Note) The EUI of stores is calculated as the electricity consumption per ping (approximately 3.3 square meters) based on the data provided by Taiwan Power Company each month. The EUI for stores in areas without any data from Taiwan Power Company is estimated on the same basis. The two are added to produce the total electricity consumption that month, which is then divided by total floor area before adding up the EUI value of 12 months.

Greenhouse Gas Emission Intensity Metrics and Targets

Considering that the largest greenhouse gas emission source of President Chain Store Corporation comes from electricity consumption of the stores, and that the electricity consumption is intertwined with the store size, equipment and business model, which will eventually be reflected by the revenue, we calculated the emission intensity per NT\$ million in revenue as reference for the reduction target for overall greenhouse gas emissions. To effectively manage greenhouse gas emissions of President Chain Store Corporation's own operations and its value chain, we re-examined the goal setting method in 2022 and separated the greenhouse gas emissions of our own operations and value chain management in target setting. In our own operations, the greenhouse gas emission intensity of Scope 1 and Scope 2 is set to be reduced by 7% in 2025 and 14% in 2030, using the 2020 greenhouse gas inventory of 2.99 tonnes CO₂e/NT\$ million turnovers, as the benchmark to set the greenhouse gas emission intensity target. The greenhouse gas emission intensity was 2.75 tonnes CO₂e/NT\$ million turnovers, a decrease of 8.04% compared with the base year. In addition, in

terms of value chain management, we are actively optimizing the inventory items and methods of Scope 3 emissions. In the future, we expect to introduce Science-Based Targets (SBT) to strengthen the carbon management of the entire value chain with updated medium- and long-term targets. It is hoped that President Chain Store Corporation can be the pioneer in the industry as well as an important partner for Taiwan in achieving its net-zero emission goal.

4.4 Food Waste and Waste Management

Food Waste and Waste Management Strategy

The busy pace of modern life gave rise to the services of compound retail stores such as convenience stores. The introduction of new products and services has made convenience stores an indispensable part of a convenient modern life. However, convenience also gives rise to the use of more disposable commodities and packaging consumables. As the leader with a large number of stores in a wide range of locations, President Chain Store Corporation cannot shy away from the responsibilities regarding food waste and waste disposal.

Food Loss and Waste

The food loss and waste generated by convenience stores is an important issue that President Chain Store Corporation cannot shy away from. The lifecycle of food loss and waste generated by President Chain Store Corporation operations can be divided into several phases according to the supply chain process, including food loss and waste produced by upstream manufacturers, losses in logistics and transportation operations, scrapped fresh food, and food waste from store operations. Food loss and waste that cannot be properly disposed of is not only a waste in food ingredients but will also lead to food security problems. Furthermore, it will also emit greenhouse gas while decomposing in landfills, aggravating the greenhouse effect. After announcing the target of halving food waste by 2030 in 2020 (compare with annual volume and reduction ratio of food waste from the stores and factories in base year 2019), President Chain Store Corporation took a detailed inventory to find out where food waste went and started implementing four metrics in 2021, including reducing the amount of scrapped fresh food year by year, reducing production loss at the manufacturers, reducing loss during logistics operations, and increasing the recovery of food waste in the stores. Executives of the highest level from the Fresh Food Division, Marketing Division, Logistics Division and divisions related to operations hold monthly food waste management meetings, regularly tracking performance through these four metrics and continuing to reduce food waste and loss to ultimately reduce food waste at the source in the three stages of production, order and delivery, as well as retail.

Waste

The waste produced by President Chain Store Corporation is mainly domestic waste, which belongs to the general waste and general industrial waste as categorized by the Ministry of Environment with no hazardous industrial waste. The generation of bulk waste is closely related to store operations, including operational waste from upstream fresh food manufacturers, general waste (food waste, general household waste, etc.) generated by store services, and recyclables generated from the stores' reverse logistics mechanism, etc. To this end, President Chain Store Corporation has decided to reduce the volume of waste removal from a single store by 45% in 2028. In 2023, the target is reducing the volume of waste removal from a single store by 35% (compare with base year 2019).

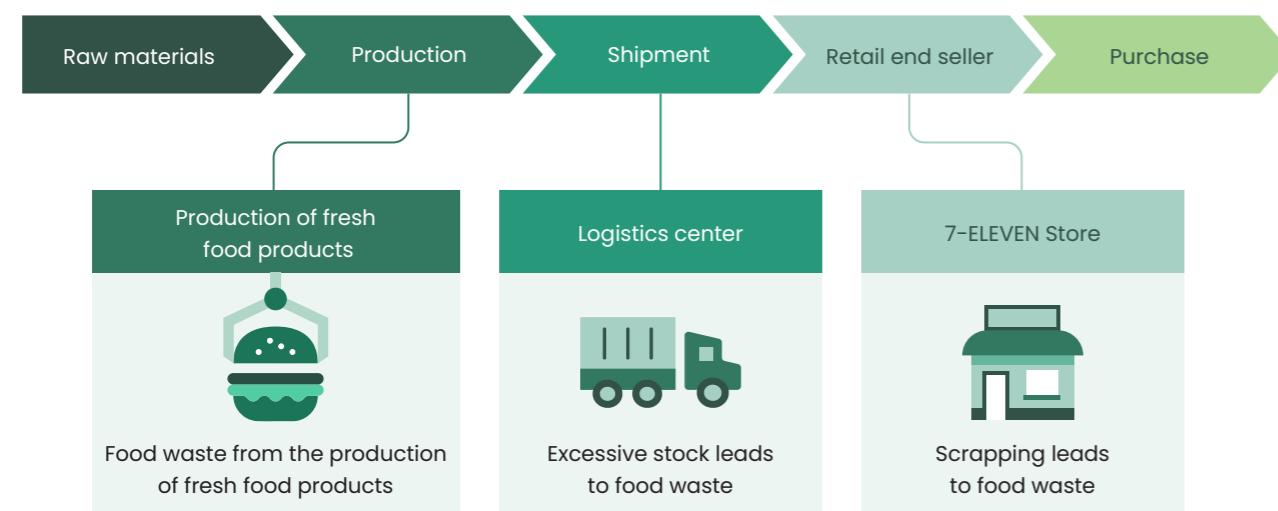
In 2023, the non-recyclable waste generated by the stores and headquarters activities reached 43,764.67 metric tonnes, accounting for 0.96% of the national waste for incineration. If President Chain Store Corporation fails to properly handle and reduce waste, not only will it put a heavy burden on the incineration plants, but it will also exacerbate the subsequent environmental impact caused by waste incineration. President Chain Store Corporation follows the 3R principles in the overall waste management strategy to reduce, recycle, reuse, as well as minimizing non-recyclable waste. In terms of our own operations, we are concerned about the impact of plastic on the environment that is difficult to decompose and fulfill our corporate social responsibilities. To this end, President Chain Store Corporation engages in three aspects to reduce plastic, including “reduction at the source,” “innovative packaging” and “encouraging customers to bring their own containers,” as well as expanding the recycling mechanism in the stores to gradually decrease the dependence on single-use plastic and ensure proper treatment of waste from our operations. We are also actively concerned with waste from the downstream waste of the value chain by combining “convenience” and “recycling” through our many bases. Furthermore, we recycle PET bottles with Intelligent Automatic Recycling Machines, help people recycle electric waste, and turn waste into resources to fulfill our social responsibilities (for detailed packaging material management measures, please refer to [4.2 Packaging Material Management](#)).

Food Loss and Waste Generation and Process Flow Management

According to the UN Food and Agriculture Organization (FAO), one-third of the food produced in the world is discarded at roughly 1.3 billion tonnes. Statistics from the Ministry of Environment shows that the amount of food waste in Taiwan in 2022 was as high as approximately 490,000 metric tonnes. Food loss and waste is not simply about wasting ingredients, it involves the loss of resources consumed during food production, including land, water, energy and labor, etc. The decomposition of food waste in landfills also produces greenhouse gases, as well as leading to food safety problems. The environmental impact of food waste shows that the urgency of reducing food waste is self-evident.

As part of the retail industry, President Chain Store Corporation is closely intertwined with food. To this end, it has taken the responsibility in reducing food loss and waste from the overall supply chain from three stages including “production,” “order shipment” and “retail.” In 2021, the Food Waste Reduction Task Force was set up under the Sustainability Development Committee, regularly reporting the progress of the project to the Sustainability Development Committee.

Supply Chain Procedure



Production: Reducing Food Loss and Waste from the Production of Fresh Food Products

President Chain Store Corporation reduces food loss and waste from the factory production process through three major changes. First of all, production is now initiated upon order receipt instead of estimation to better control the production volume. Second, the waste of raw materials were reduced through the centralized production of various items. Last but not least, two adjustment of raw material estimates are performed prior to production to avoid excessive material in stock caused by weather changes or order fluctuations. The surplus after production is provided as employee meals. Finished and semi-finished products are also resold to employees to reduce food waste. In 2023, the production losses (amount of food waste per NT\$ million of revenue) decreased by 41.86% compared to the base period of 2019. Starting from 2023, we have actively inquired manufacturers about main categories of food waste, giving priority to categories with a higher proportion and collaborating with manufacturers to discuss management strategies. For example, we discussed with manufacturers about improving the quality of fruits and vegetables used for raw materials to reduce the loss of pre-processing scraps.

Order Shipment: Reducing Food Waste from Excessive Stock

President Chain Store Corporation has set up an AI order forecasting system at store end to reduce inventory and scrapped goods through placing accurate orders. The store end keeps the most suitable items on the shelves through monitoring the ones that are often scrapped because they don't sell well each month. In addition, starting from August 2020, the ordering time for 4°C fresh prepared food was advanced to 12 hours before delivery. This allows fresh food factories to adjust supply and demand earlier and reduce food depletion to a minimum. In the meantime, in order to reduce food loss and waste in the process of logistics and distribution, President Chain Store Corporation has extended the validity period of fresh food products in 2022. New technologies have been adopted to allow for the extension, such as the high-temperature sterilization equipment and special sealing film to reduce food waste.

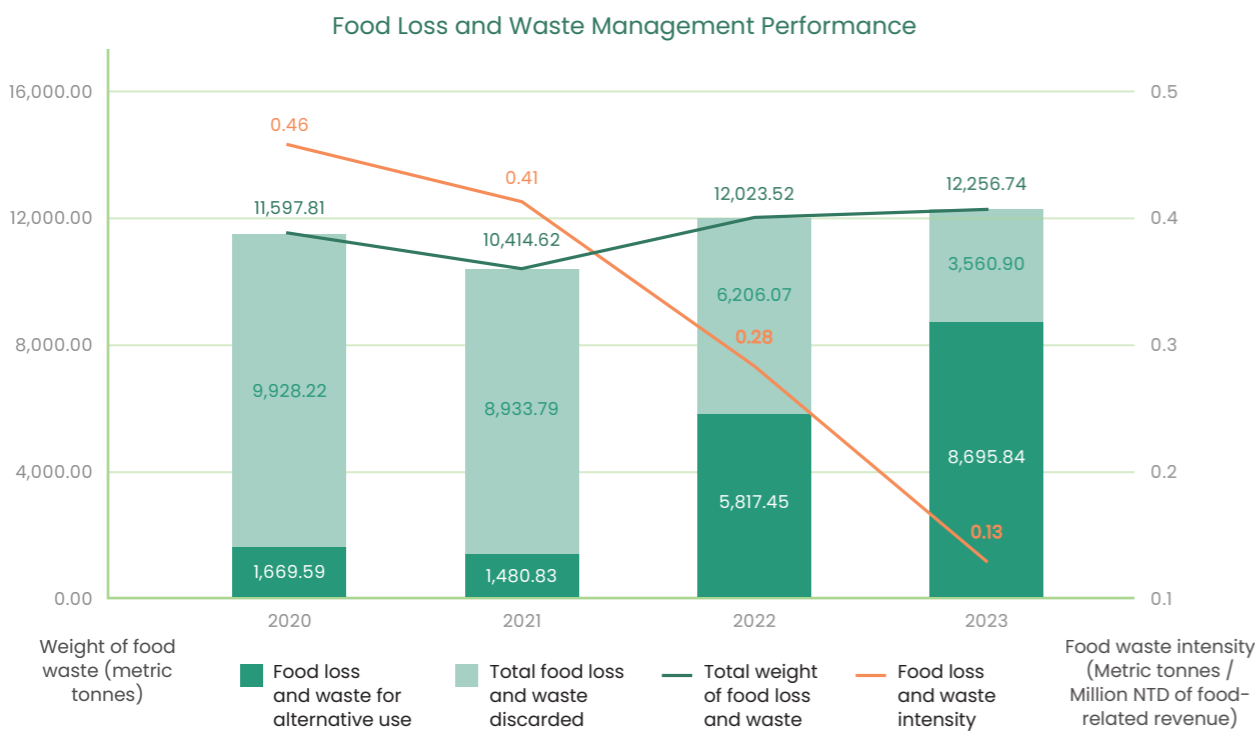


Retail: Reduce Food Loss and Waste from Scrapped Food

President Chain Store Corporation introduced the “iLove Food” program that takes advantage of the “smart labeling system” that was originally used for flagging expired products to prevent expiration. Besides managing the shelf life of food, this allows for better control over the “best before” time (8 hours prior to expiration). A 35% discount is given 8 hours prior to expiration on over 100 products. The “iLove Food Map” was also launched on the OPENPOINT APP to check on the stock as well as subscribing for product availability notifications. In 2023, the “iLove Food” program reduced the generation of leftover food by approximately 13,723.31 metric tonnes, with a 40.32% growth compared to last year. In the future, President Chain Store Corporation also plans outsource cleaning and transportation to certain stores, all of which will join the food waste recycling process. President Chain Store Corporation will continue to manage the value chain, stay updated with factory production losses, the scrap rate of fresh food (the percentage of decline in the amount of food waste per NT\$ million in revenue), the recovery rate of food loss and waste in stores (the proportion of stores with food waste recycling) and other management metrics, in order to achieve the goal of halving food waste by 2030 (compare with annual volume and reduction ratio of food waste from the stores and factories in base year 2019) and contributing to the mitigation of climate change.

Food Loss and Waste Management Performance

In addition, President Chain Store Corporation inventories the production and sales of private-label products from manufacturing to retail to understand the amount of food loss and waste at each stage, in order to better organize more appropriate measures for reducing food waste. The total amount of food waste generated in 2023 was 12,256.74 tonnes, increasing 1.9% from 2022. The reasons include scope expansion for manufacturers from 4 to 12 this year, number of stores and continuous growth in fresh food sales. The food used for alternative purposes ratio was 70.95% (mainly for animal feed/compost) in 2023, with a significant growth compared to 48.38% in 2022. The surplus food recovery rate in manufacturing factories has grown from 87.00% in 2022 to 100.00%. Total discarded weight of food waste was 3,560.90 tonnes with a decrease of 42.6% from 2021. President Chain Store Corporation will continue to strive to lower food loss and waste, and increase the food waste recycling in the stores as main management strategies to optimize our collaboration with outsourced cleaning companies, as well as encouraging all stores to follow our lead in making an effort towards food loss and waste management.



To actively reduce food loss and waste, President Chain Store Corporation analyzes the categories of food waste in addition to measuring its weight distribution through the value chain. Food loss and waste is divided into 10 categories, with the proportion estimated and ranked based on the weight of private-label products to propose management actions targeting commonly-seen categories of food waste. In terms of food waste categories in 2023, the highest proportion was 17.69% of rice balls, as the sales volume is high but the product has a close expiration date. Therefore, it is easy to be scrapped. The second highest proportion for food waste category was 14.85% of noodles, as it has a relatively high sales volume and sales proportion. Rice balls, noodles and other fresh food products with rice constitute the top three categories of food waste. President Chain Store Corporation aims at reducing food waste with advanced orders, centralized production and processing plant stocking accuracy, and two iLove Food discount time slots to increase product sales opportunities. We worked on three aspects including production, order and delivery and retail, as well as convening with different divisions to formulate measures for managing food loss and waste.

Proportion of Weight by Categories of Food Loss and Waste

Category of Food Loss and Waste (Note 1)	Store										Manu- facturer	Head- quarters	Total pro- portion
	Cooked food	Noodles	Salad	Hot dogs	Tea eggs	Boxed meals	Rice	Rice ball	Oden	Refrigerated conditioned bread			
Proportion of Weight	5.81%	14.85%	3.94%	3.00%	2.27%	5.25%	10.47%	17.69%	3.96%	7.31%	25.39%	0.07%	100.00%

(Note 1) The proportion of food loss and waste categories is estimated based on the weight of private-label products.

Reusing and Reducing Food Loss and Waste

Upgraded iLove Food Program and Reducing Food Loss and Waste with Technology

As the leader in the retail industry, President Chain Store Corporation is committed to reducing food waste. President Chain Store Corporation launched the iLove Food Map in the app in 2022 for consumers' easy access to the iLove Food availability in each store, allowing them to take advantage of the convenient program. In 2023, iLove Food prevented the generation of 13,723.31 metric tonnes of food loss and waste with an increase of 3,943.16 metric tonnes from 2022. In addition to working together with consumers to reduce food waste, we extended the shelf life of food in 2023 by taking advantage of new technologies, such as the high-temperature sterilization equipment and special sealing film to reduce food loss and waste from overstock.

Furbaby Welfare Enterprise Project : Recycling Food Waste for Social Welfare

In 2023, President Chain Store Corporation launched the brand new "Furbaby Welfare Enterprise Project" initiative to reduce food waste and encourage recycling. Working with social enterprises and animal rights groups, President Chain Store Corporation collects specific salads and fruit during the iLove Food time slot and turns them into freeze-dried food for pets. A campaign with donation pledges was also launched so that consumers can participate in the initiative. By combining recycled food waste and social welfare, President Chain Store Corporation continues to discover new possibilities with sustainability actions (Please refer to [the "Furbaby Welfare Enterprise Project" section of the sustainability column](#) and [6.3 Environmental Protection – Circular Economy](#)).

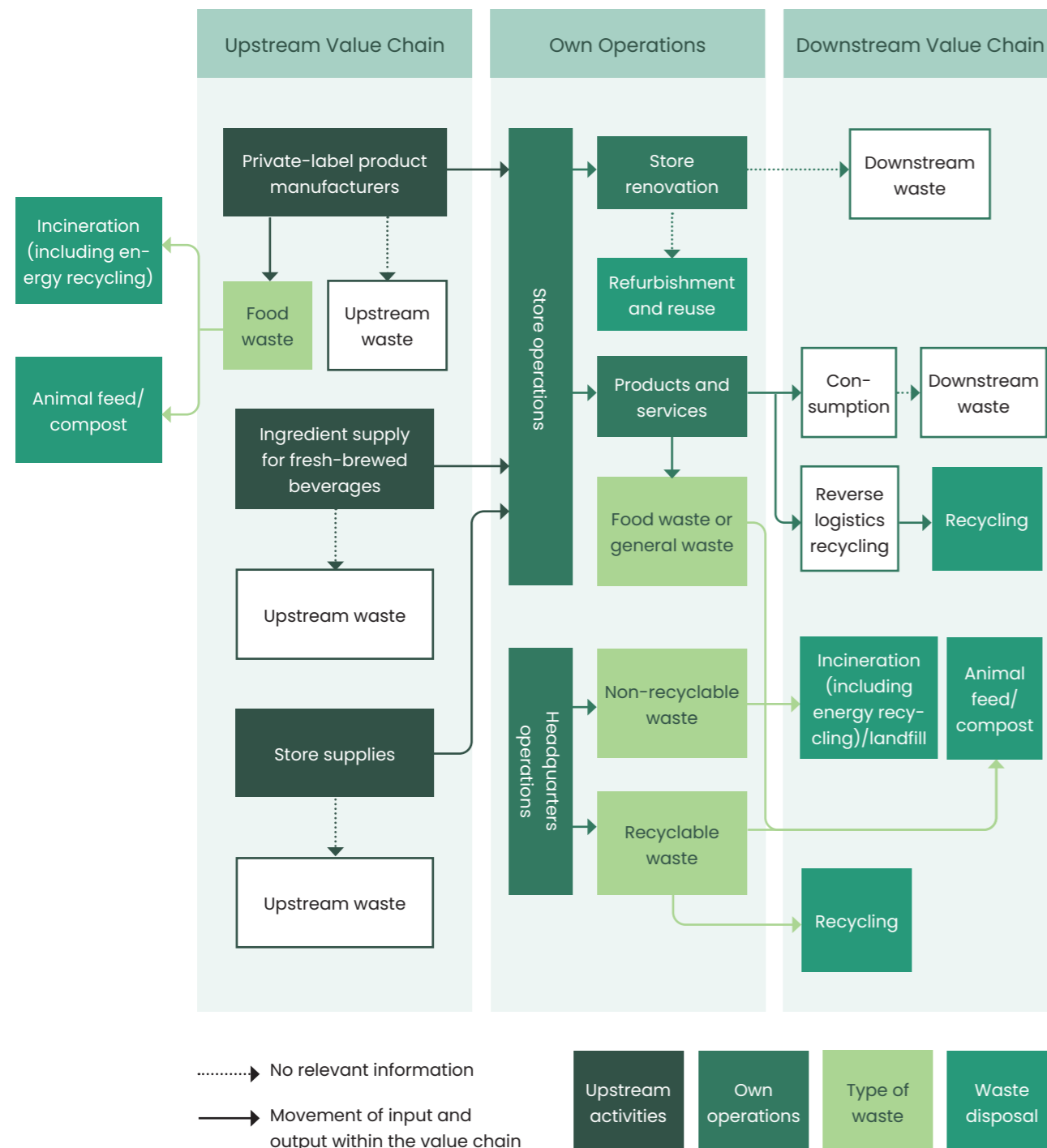
Sustainable Farm: A New Eco-friendly Food Option

To further seek circular economy solutions, President Chain Store Corporation started investing in the "Sustainable Farm" project in 2023. Based on the concept of "being friendly to the earth with a cup of coffee," coffee grounds, expired, opened or defective scrap products were systematically turned into a safe and non-toxic organic fertilizer with the help of the equipment from a professional agricultural biotechnology team automatically breeding black soldier flies, before using the fertilizer on its contracted sustainable farms. Not only does the fertilizer make the soil rich in organic matter, it can promote the restoration of a healthy ecology for the soil to be friendly to the earth and environmentally sustainable. The fertilizer is used on cabbage farms, and the harvest cabbage is used in side dishes for fresh food products or sold as fresh produce in the stores. The Sustainable Farm continues to grow different crops such as cabbage, bananas, corn and lettuce with organic fertilizer made with expired, opened or defective scrap

products and coffee grounds. The crops are then sold in 7-ELEVEN stores to make resource recycling a reality, as well as providing consumers with the option of a sustainable diet (Please refer to [the Sustainable Farm section of the sustainability column](#) for detailed management measures).

Waste Generation and Process Flow Management

President Chain Store Corporation's Waste Generation Flow



To understand the amount and process flow of waste, President Chain Store Corporation collects and calculates the amount of waste at each operating site on a yearly basis. The headquarters building signs an agreement with a waste management company, which calculates the amount of waste generated and treats various types of waste in a manner that complies with the laws. Regarding the retail stores, only Taipei City, New Taipei City, Taoyuan City and Tainan City at present require convenience stores to dispose of waste separately from other entities, while waste from stores located in other counties and cities is disposed of with household waste. Besides the stores that are obliged to dispose of waste separately, President Chain Store Corporation has formulated a plan to encourage stores from other cities and counties to also outsource waste management with the aim to better control the amount of waste generated by retail stores. In addition to its own operational waste, President Chain Store Corporation also attaches great importance to the waste management of fresh food manufacturers in the upstream value chain. We regularly calculate the amount of food loss and waste generated by the manufacturers and track the food waste disposal to better understand the situation of food waste. The recyclable waste from the stores mostly comes from packaging cartons and the electronic waste people bring in. Please refer to the ["Convenient Recycling Platform"](#) for further details.

Waste Management Performance

In 2023, a total of 1,004 stores and the headquarters building have entrusted waste management to dedicated companies, which reported the amount of waste diverted and disposed as well as removal and treatment methods for different kinds of waste, including food waste and general household waste, whereas waste produced by other stores and offices (general household waste) is harder to measure. Therefore, the amount of waste produced by a single store or per capita is used for estimation. Scrap items are estimated based on the date, and the disposal method of waste that was not outsourced to cleaning companies is speculated based on national waste disposal announced by the Ministry of Environment for the current year.

In 2023, the total amount of non-recyclable waste from store operations and headquarters activities was 43,764.67 tonnes. To effectively manage non-recyclable waste (excluding food loss and waste) in stores, President Chain Store Corporation takes 2019 as the base year and sets the average waste generated by a single store as the target to reduce 35% in 2023 compared with the base year, and by 45% in 2028 compared to the base year. In 2023, the amount of waste generated by a single store is 5.92 tonnes, a decrease of 29.81% compared with the base year. Even though we have introduced many waste reduction measures, we failed to meet the annual target. In the future, we will continue to track waste data and actively promote recycling, reuse and plastic reduction to strengthen the management of non-recyclable waste in our stores.



President Chain Store Corporation Waste Generation and Disposal in 2023

Waste Disposal (Note 1)		Waste Composition	Location of Waste Generation (Note 2)	
			Upstream (Metric Tonnes)	Own Operations (Metric Tonnes)
Off-site	Animal feed/compost (Note 3)	Food waste	3,112.00	5,575.50
Off-site	Incineration (including energy recovery)	Food waste	—	3,325.30
Off-site	Landfill	Food waste	—	235.60
Off-site	Recycling	Recycled plastics	—	870.00
Off-site	Recycling	Paper	—	10,309.60
Off-site	Recycling	Metal	—	64.33
Off-site	Recycling	Batteries	—	439.10
Off-site	Recycling	Optical discs	—	80.01
Off-site	Recycling	Electronic appliances	—	70.50
Off-site	Landfill	General household waste	—	2,534.36
Off-site	Incineration (including energy recovery)	General household waste	—	37,905.00

(Note 1) Waste disposal data at the headquarters building and the stores that outsource waste management was collected from the outsourced waste management companies. The proportion of waste incineration and landfill at other stores and operating bases was considered as 93.38% based on 2023's national general waste disposal published by the Ministry of Environment.

(Note 2) The scope of data for our own operations includes the headquarters, regional offices and stores. The scope of data from the upstream covers 12 manufacturers.

(Note 3) The data before 2021 only covers Taipei City, New Taipei City and Taoyuan City. The data from 2022 covered all stores in Taiwan.

Waste Reduction Actions

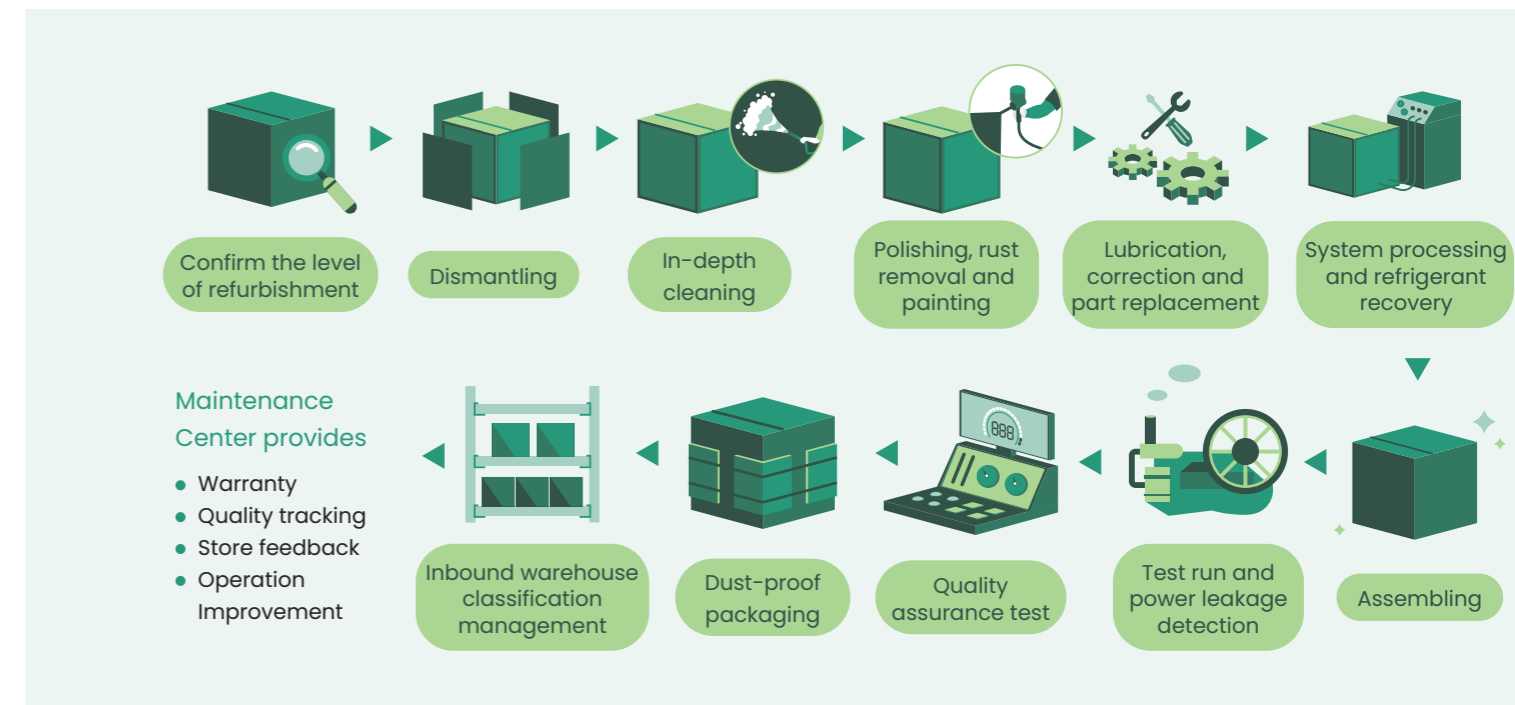
Waste Reduction in Headquarters

To encourage employees to save resources, the President Chain Store Corporation headquarters set "paper-saving" as an internal management metric. The paper consumption per capita in 2023 increased by 20.38% compared with the previous year, as a total of 66 employees returned to the office after the pandemic. We will continue to encourage the employees replace printing, scanning and photocopying with electronic files and double-sided printing, etc., in order to reduce the amount of paper used in office and administrative processes. In addition, the headquarters building has also continued the recycling program. In 2023, the weight of recycling reached a total of 18,425 kilograms, an increase of about 3.36% over 2022 due to the cleaning days we had at the first and second halves of the year. We aim at increasing the amount of recycling in the headquarters building by continuing to promote waste reduction and classification each quarter.

Store Equipment Reuse

In order to provide the most convenient products and services, it relies on a large number and variety of machines. As the wear and tear as well as out-of-service machines cause a great burden on the environment, we have made good use of our flexible dispatch system and a great number of stores to set up the Equipment Refurbishment Center. The recycling system works on existing equipment from renovated and shut down stores, such as air conditioners, refrigerators, oven cooking machines, microwave ovens and so on. It is returned and put to use after inspecting, cleaning and repairing to reduce waste of resources and waste generation, while also saving on equipment procurement costs. In 2023, 34 types of equipment were refurbished and put to use, with the total number of 2616 machines and saving a total amount of equipment procurement costs of NT\$93,794,438.

Equipment Refurbishment Process



Convenient Recycling Platform

By taking advantage of the multiple bases, President Chain Store Corporation effectively combines "convenience" with "recycling" in helping people recycle electronic waste, including batteries, laptops, optical discs, mobile phones and chargers. To encourage people to recycle through convenience stores, President Chain Store Corporation provides NT\$3 to NT\$120 of store credit. Moreover, the Intelligent Automatic Recycling Machine that can recycle PET bottles and batteries were incorporated in 2022. The scale was further expanded in 2023 with 140 stores adopting the machine, recycling a total of 7.912 million PET bottles and 2.748 million batteries. The recyclable waste collected is shipped and distributed through the intensive and comprehensive logistics network, then classified and processed after being collected by the reverse logistics system. For further details, please refer to the section on "Intelligent Automatic Recycling Machine" in the sustainability column.