

Realization of a Low-carbon Society

Management Approach

Recognition of Challenges

The problem of global warming has brought a large and negative impact to the global environment. Aeon has expanded its business to 20,476 stores/locations in 13 countries around the world, and as business activity has an impact on global warming, we believe that the use of energy in store operations and the use of alternative fluorocarbon refrigerants in refrigerated cases is large. A society with fewer greenhouse gas emissions - "the realization of a low-carbon society" is listed in the key issues, and we are working on a variety of initiatives.

Aeon's Approach

Aeon has set environmental targets for FY 2020, the Aeon eco Project. With current increasing needs for energy use efficiency and power conservation, and with the experience of the Great East Japan Earthquake, Aeon has added perspectives of reducing energy use and developing renewable energy to environmental protection in September 2012 and has additionally taken on a role as a lifeline center protecting the community in disasters and emergencies.

The Aeon Natural Refrigerant Declaration was announced in FY 2011, and the introduction of natural refrigerant refrigerated cases with a small global warming potential is also being promoted. In addition, we are also working on the reduction of CO₂ emissions in products and logistics.

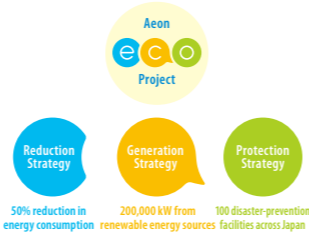
Future Initiatives




In July 2015, the Government of Japan finalized a goal to reduce domestic greenhouse gas emissions 26% compared to FY2013 by the year 2030. To contribute to reaching this goal, Aeon will continue to engage in the Aeon Eco Project and will begin sharing its energy management expertise developed in Japan at its subsidiaries in China and ASEAN.

Aeon Eco Project

In the form of our Aeon Eco Project, Aeon set environmental targets for FY2020, and is carrying out various initiatives to achieve those targets. The project incorporates a protection strategy in addition to targets that aim to conserve energy and save power, such as strategies for reducing energy use that promote smart use of energy to conserve it, and strategies for generating energy to produce renewable energy, primarily solar power generation. This aims to turn stores into disaster prevention facilities to function as lifelines in times of emergency.

Smart Aeon is one of the initiatives for implementing the Aeon Eco Project. 9 stores have given birth to Smart Aeon up to the end of FY2015. (▶P.41)



	FY 2015 Results	Targets for FY2020	Examples of Initiatives
Reduction Strategy ▶P.39	Energy consumption Expected reductions of 25% (compared to FY2010)	50% reduction in energy consumption	Transition to LED lighting 
Generation Strategy ▶P.44	Stores installed with solar panels 916 stores Electricity generation capacity 56,474kW (total up to FY2015)	200,000 kW from renewable energy sources	Solar panel installation 
Protection Strategy ▶P.85	Disaster-prevention 27 locations across Japan (total up to FY2015)	Make 100 Aeon stores across Japan disaster-prevention facilities	Private power generation equipment installation 

FY2015 KPI Progress

Main Category	Subcategory	KPI	Scope Covered	Target	FY 2015 Results	Summary of Actions/Initiatives in FY 2015
Reduce CO ₂ Emissions in Stores	Reduce Total CO ₂ Emissions	Total Annual CO₂ Emissions Factor (CO₂ Emissions/ Total Floor Area)	Consolidated Group companies in Japan and overseas (Japan, China and ASEAN)	FY 2010:0.101t/m ² (Performance) ▼ FY 2015:0.075t/m ² or less FY 2020:0.050t/m ² or less	0.0754t/m² (expected)	1) Energy-saving equipment introduction/update: · Store lighting LED conversion (basic lighting, such as spotlights) · Introduction/updates of energy-saving refrigerated cases, air conditioning equipment 2) Energy saving through operational improvement (lighting, refrigerated cases, air conditioning, etc.) · Education by energy advisor training · Verification of energy rational management techniques · Energy-saving operation propulsion using an energy-saving checklist and Procedure manual
	Improve Energy Efficiency [Reduction Strategy]	Total Energy Use Factor (Amount of Heat / Total Floor Area)	Consolidated Group companies in Japan and overseas (Japan, China and ASEAN)	FY 2010:2.731GJ/m ² (results) ▼ FY 2015: 2.048GJ/m ² or less FY 2020: 1.365GJ/m ² or less	2.048GJ/m² (expected)	
	Preventing Leakage of Fluorocarbons and Natural Refrigerant Equipment [Introduction Promotion (Natural Refrigerant Declaration)]	Measures for Ascertaining Replacement Amount and Preventing Leakage of Fluorocarbons used in Refrigerated Display Cases	Consolidated Group companies in Japan	FY 2015: Operation of management system compliant with the Fluorocarbons Recovery and Destruction Law	Aeon Delight Co., Ltd. introduces a centralized management scheme (Running in 22 companies such as GMS, SM, DS)	1) Simple and periodic equipment inspection 2) Fluorocarbon leakage amount management and periodic reporting follow up
		Number of Stores Installing Refrigerated Display Cases that use Natural Refrigerants	Consolidated companies in Japan for GMS, SM and Small-sized Store Business	Plan for installation at new stores FY 2015:Introduction in all new stores	Introduced to the six new GMS stores and eight supermarket and small stores (Total 42 stores)	1) CFC-free regular holding of implementation project 2) Information gathering for handling manufacturer expansion and consideration of introduction expansion of built-in CO ₂ refrigerant refrigerated cases.
Reduce CO ₂ Emissions in Products and Logistics	Promote Visualization in Logistics	CO₂ Emissions per Case during Shipment from Distribution Center to Store	AEON GLOBAL SCM CO., LTD.	FY 2015: 10% reduction compared with FY 2013	CO₂ emissions per case 132.3g (FY 2015) 10.0% reduction compared with FY 2013	1) Environmental vehicle introduction promotion 2) Eco-drive promotion 3) Excellent driver awards
Generating Electricity in stores	Generating renewable energy [Creation Strategy]	Power generation capacity of renewable energy (purchased power only)	Consolidated Group companies in Japan for GMS and SM businesses	Generate 200,000kW of electricity by 2020	Total 57,000kW	Installed solar panels in 14 stores (Total 916 stores)

Reducing CO₂ in stores

CO₂ emissions reduction/energy efficiency improvement [Aeon Eco Project: Reduction Strategy]

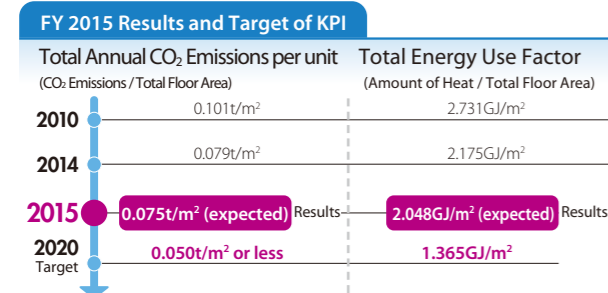
Aeon stores consume a large volume of energy^{*1}, mainly in air-conditioning and lighting as well as freezer and refrigeration cabinets. For Aeon, which has a store network spanning Japan as well as other countries in Asia, reducing CO₂ emissions from stores^{*2} plays a key role in reducing emissions for the entire company. That makes it all the more important for us to focus on reducing CO₂ in our stores.

Switching to LED lighting in stores continued and was actively promoted in FY 2015, and basic lighting and spotlights were changed to LED lighting in 333 stores nationwide and 4,339 stores in total. In addition, we have worked on items such as the introduction and updating of energy-saving equipment and verification of rational energy management techniques. For example, facility managers from AEON Retail Co., Ltd. worked with store Energy Advisors to plan and execute measures in an effort to improve the energy-efficient operations of stores that lacked energy consumption efficiency in terms of energy used per basic unit. Based on these efforts, Aeon's electricity usage in FY2015 was approximately 25% lower than in FY2010. This is mainly effective through the introduction of LED lighting and each piece of energy saving equipment and measures introduced.

In FY2016, we will work on reducing energy usage even more by introducing new energy-saving equipment and by improving energy-saving operations. Our efforts will focus on measures at stores with air conditioning systems that use hot-and-chilled water generators in an effort to reach our targets set for FY 2020.

^{*1} Looking at a breakdown of energy consumed on a heat conversion basis, around 90% is accounted for by electricity and the remainder by city gas, LP gas and heavy oil.

^{*2} All CO₂ emitted from stores can be attributed to energy consumption. Specifically, around 8% comes from direct emissions through city gas, LP gas and combustion of heavy oil (Scope 1) and around 92% comes from indirect emissions through power consumption (Scope 2). The calculation of CO₂ emissions from power consumption uses calculation standards and an emissions factor pursuant to the Act on Promotion of Global Warming Countermeasures.



^{*} With The Dai-ichi, Inc. becoming a full subsidiary in January 2015, figures have been recalculated back to FY2010.

Obtain ISO50001

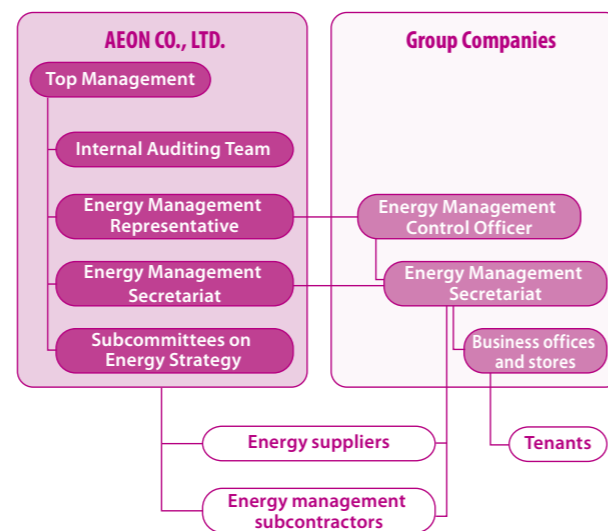
In July 2013, AEON CO., LTD. became the first retailer in Japan to obtain the ISO 50001 certification, an energy management certification defined by the International Organization for Standardization (ISO). ISO 50001 is an international standard specification that defines the requirements to be met by business operators when they establish an energy management system. It is being adopted around the world, including in the U.S. and China.

AEON CO., LTD. has established an energy management system under which it works as an entire group of companies to use energy more efficiently with the goal of attaining the energy-saving targets laid out in the Aeon Eco Project. The scope of Aeon's ISO 50001 certification is blanket energy management activities covering the entire Aeon Group of companies.



ISO 50001 certificate

Framework for Promoting our Energy Management System (EnMS)



Improving energy management practices

AEON CO., LTD. has systematized an in-house Energy Advisor Program aimed at leveraging our Aeon Eco Project to further develop human resources in our retail stores.

The Energy Advisors help assess the status of energy usage in stores and work to propose and promote ideas for more efficient usage. As of the end of February 2016, a total of 500 Energy Advisors had been certified.

In the future we will continue to develop more certified Energy Advisors, enhance the capabilities of current Energy Advisors, and work to expand the program to Group companies, including those outside of Japan.

Preventing Leakage of Fluorocarbons and Promoting Use of Natural Refrigerant Equipment

More and more freezing and refrigeration units started using non-ozone depleting alternatives to chlorofluorocarbons (CFCs) as refrigerant following the abolition of the production and use of ozone-depleting CFCs under the Montreal Protocol adopted in 1987. However, these alternatives have extremely high global warming potential (GWP)^{*1} and the problem of leaking into the atmosphere, which prompted calls to switch to natural refrigerants with low GWP.

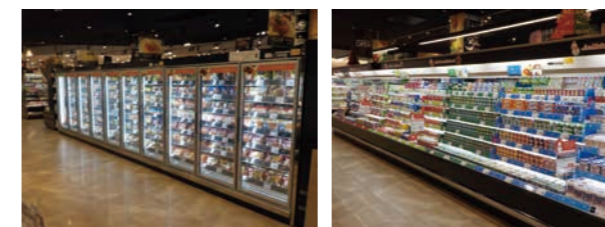
In 2009, Aeon became Japan's first retailer to start introducing refrigerators and freezers that use a low-GWP natural refrigerant^{*2} (CO₂). Following this, we announced the Aeon Natural Refrigerants Declaration in 2011 and are planning to install natural refrigerant-based refrigerators and freezers in every new store to open from now on as well.

As of the end of February 2016, we have installed natural refrigerant-based refrigerators and freezers at 42 stores, including our new Aeon Style Tokoname store, MaxValu supermarkets, and Ministop convenience stores. We will continue considering to switch to natural refrigerants even in existing stores on a gradual basis.

Aeon faces certain issues ahead of the introduction of natural refrigerants, including the lack of manufacturers and high installation costs. We will do our utmost to overcome these issues and promote the industry-wide use of natural refrigerants by leveraging performance data accumulated to date to raise awareness going forward and build ties with companies within the same industry and other industries.

^{*1} Global warming potential: Coefficient indicating the degree of influence to global warming. If CO₂ is 1, the alternative for fluorocarbons that are being used in refrigerated cases are several thousand times larger

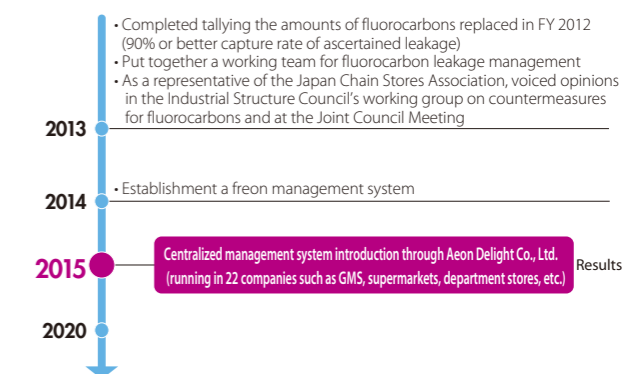
^{*2} Natural refrigerants: Substances known as natural refrigerants include ammonia and carbon hydride as well as CO₂.



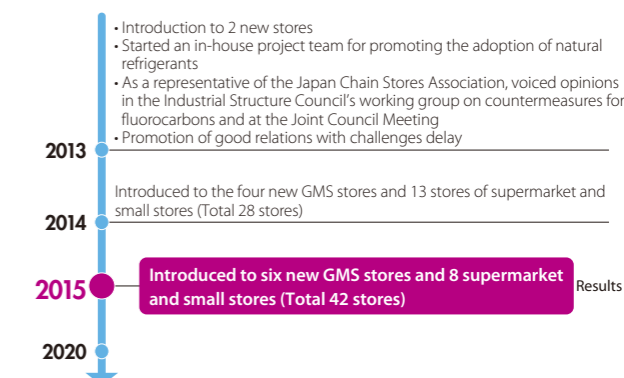
Aeon Style Tokoname

FY 2015 Results and Target of KPI

Measures for Ascertaining Replacement Amount and Preventing Leakage of Fluorocarbons used in Refrigerated Display Cases



Number of Stores Installing Refrigerated Display Cases that use Natural Refrigerants on a Trial Basis



Aeon store development [Smart Aeon development]

Working to build environmentally friendly stores, Aeon has defined Eco Stores as outlets that achieve at least 20% lower CO₂ emissions in comparison with conventional stores, and a CASBEE^{*1} ranking of A* or higher. Since the opening of our first Eco Store, the Aeon Chikusa Shopping Center, in May 2005, 12 such stores had been opened by February 2013.

In September 2012, we started working on further developments for Next-Generation (Smart Aeon) Eco Stores. In addition to building stores with lower environmental impacts than in the past, we also formulated five criteria, (Smart Energy, Integration of E-Money and the Internet, Traffic Situation (Smart Mobility), Biodiversity and Landscape, Disaster Prevention and Regional Infrastructure), from the perspective of civic- and community-building efforts carried out in cooperation with local regions. We have positioned this as a key initiative for implementing the Aeon Eco Project.

Starting with the opening of the 1st Smart Aeon store Aeon Mall Yahata Higashi in March 2013, there was an expansion of 2 more Aeon Smart stores in FY 2015, Aeon Mall Okinawa Rycom, and Aeon Mall Shijonawate 9 stores^{*2} have given birth to Smart Aeon up to the end of February 2016.

^{*1} CASBEE: Environmental performance evaluation system architecture that was developed in 2001. It is used as an index to evaluate and display objectively the performance whether you are conscious how the global environment and surrounding environment, that there is no waste in running costs, such as, or comfortable for the user.

^{*2} 9 stores: Aeon Mall Yahata Higashi, Aeon Town Shin-Funabashi, Aeon Mall Osaka Dome City, Aeon Mall Makuhari New City, Aeon Mall Nagoya Chaya, Aeon Mall Kyoto Katsuragawa, Aeon Mall Kisarazu, Aeon Mall Okinawa Rycom, and Aeon Mall Shijonawate



Installation of Recharging Stations for Electric Vehicles

Aeon first set up a high-speed recharging station for electric vehicles at the Aeon Lake Town store located in Koshigaya city, Saitama prefecture in 2008 in order to respond to the increasing use of electric vehicles and plug-in hybrid vehicles. Since then, we have set up recharging stations at most of our new shopping centers as well as certain existing stores based on demand.

In FY 2015, we aggressively moved forward with the installation of recharging stations at existing stores, with the grand total now standing at 458 stations at 198 stores as of the end of May 2016 (of these 204 were rapid recharge stations and 254 were ordinary recharge stations). Going forward, we are continuing our proactive approach to installation.

Stores installing recharging stations for electric vehicles
Number of installed stations

Total number of stores
(as of the end of May 2016)

458 stations covering
198 stores



Reduce CO₂ Emissions in Products and Logistics

Promote Visualization in Logistics

Aeon defined "CO₂ emissions per case in delivery from distribution centers to stores" in KPI, and we are working on emissions reduction in "visualization" of CO₂ emissions related to logistics.

The results of continued efforts in FY 2015 for items such as the promotion of eco-driving and introduction of environmental vehicles such as large natural gas vehicles and electric vehicles were that the CO₂ emissions per case in delivery from distribution centers to stores were reduced to 132.3g CO₂, a reduction of 10.1% compared to FY 2014.

In FY2016, CO₂ emissions per case in delivery from distribution centers to stores were reduced to 128.0g CO₂, a reduction of 13% compared to FY 2013.

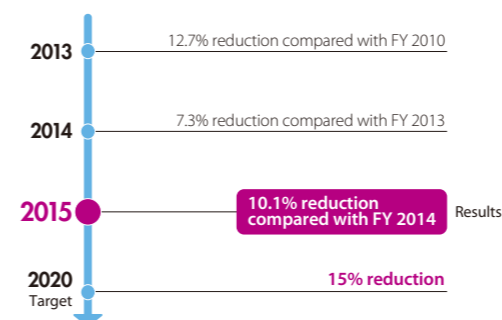
In addition, along with participating in various research meetings related to the environment started by groups such as universities, automotive manufacturers, gas companies, logistic companies and governments, through an environmental vehicle study group and rail transport study group sponsored by Aeon, we are promoting the introduction of large natural gas vehicles and the expansion of a modal shift.

In addition to continuing these efforts, in the future, we are promoting initiatives on both the hardware and software sides for the expansion of a good driver award system and implementation of Eco-drive^{*} workshops and 100% introduction of environmental adaptive vehicles.

^{*} Eco-drive: Efforts to save fuel such as trying gentle string or stopping wasteful idling, and driving to reduce CO₂ emissions

FY 2015 Results and Target of KPI

CO₂ Emission per Case during Shipment
from Distribution Center to Store



Promote a modal shift in collaboration with companies in other industries

AEON GLOBAL SCM CO., LTD., which is responsible for Aeon's logistics, aims for the reduction of CO₂ emissions and studies rail transport initiatives jointly with each member company through the Aeon Rail Transport Study Group sponsored by the same company.

As for these efforts, with the cooperation of the Japan Freight Railway Co., Ltd., seven member manufacturers^{*}

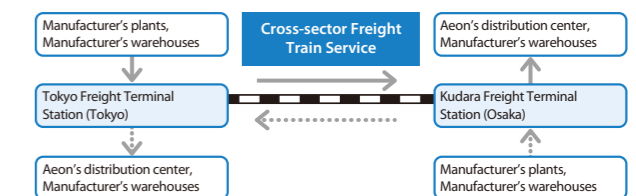
jointly participating in the same study group run a dedicated train between Tokyo and Osaka, and this has been greatly expanded to 40,786 containers (12 foot equivalent) through Aeon's railway transport. These efforts have been evaluated, and we were awarded the "Minister of Economy, Trade and Industry Award" in the "Green Logistics Excellent Business Award" at the "Green Logistics Partnership Conference" held by parties such as the Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of Economy, Trade and Industry held in December 2015. The same award is intended to honor initiatives with significant achievements in the creation of sustainable logistics systems, such as the reduction of CO₂ emissions through promotion of a modal shift.

We are assertively promoting a modal shift beyond industry in the future and are working to reduce CO₂.

^{*} Asahi Breweries, Ltd., Ajinomoto Co., Inc., Ezaki Glico Co., Ltd., Kao Corporation, Nestle Japan Ltd., Procter & Gamble Japan Co., Ltd. (P & G), Sapporo Breweries Ltd. (in alphabetical order)



Aeon rail transport study group dedicated trains



CO₂ reduction communication with customers

Aeon is working on a "visible" carbon footprint (CFP) that is displayed on products where CO₂ emissions are generated through the entire life cycle of the product (raw materials, processing steps, distribution, consumption, disposal, recycling). Through the "visualization" initiative, we are aiming for reduction of CO₂ emissions and further enhanced interest in the customers' environment.

We have participated in the "Carbon footprint (CFP) study group" sponsored by the Ministry of Economy, Trade and Industry since 2008, and we have been working on verification of carbon footprints in about 20 products.

We implemented "Bio My Basket" CO₂ calculation and verification in March 2015. Based on the results, we also implemented a carbon offset to compensate for CO₂ reduction activities in other places where CO₂ was emitted in FY 2015 as well.

Carbon Offset Achievements

- Target products: Bio My Basket
- Period: March 2015 - February 2016
- Amount: 700t-CO₂

Developing and Selling Products that Help Reduce CO₂ Emissions

Aeon is working to develop and sell products that help reduce CO₂ emissions.

Our TOPVALU Gurinai Yukigura potatoes from Toya, Hokkaido are one example. These potatoes use the cooling power of snow for preservation after harvest, which reduces electricity usage and also helps reduce CO₂ emissions. In FY 2015, CO₂ emissions have been reduced by about 30 tons through this initiative.



TOPVALU Gurinai Organic Food Series
Hokkaido Toya produced Yukigura potatoes

TOPICS

Selling "TOPVALU fururi" umbrellas to contribute to the reduction of CO₂ emissions

The "TOPVALU fururi", a changeable vinyl umbrella that combines vinyl fabrics and umbrella ribs, was launched in about 390 Aeon and Aeon Style stores^{*1}.

This product uses sugar cane-derived green polyethylene and reduces CO₂ emissions in part of the raw material. In addition, the vinyl fabric, ferrule and each part of the umbrella ribs can be disassembled and easily separated as garbage, which will lead to a reduction in CO₂ emissions.

You can "change" to your own style with up to 46 possible combinations, and the umbrella can be combined with your favorite colors and patterns. We have developed a long plastic umbrella that has been taken for granted as disposable until now, and it is a fashionable, ecological and next generation umbrella.

In addition, part of the sales of this product will be donated to the Association for Aid and Relief Japan (AAR Japan), an authorized NPO, through the activities of the AEON 1% Club. This is for the purpose of healthy development of young people in Asia in order to support the education of children in Cambodia, where the umbrellas are produced.

^{*1}: About 390 Aeon and Aeon style stores in Honshu, Shikoku and Kyushu



Tabulating CO₂ emissions across the entire supply chain

In addition to managing greenhouse gas emissions they generate directly (Scope 1) and indirect emissions from the use of electricity (Scope 2), companies must now manage emissions across their entire supply chain (Scope 3). In response to this development, Aeon has been calculating^{*} Scope 3 CO₂ emissions since FY2012.

Verification by a third party is planned in FY 2016 with regards to Scope 3 emissions.

In the future, we will further expand the precision of our

data, add more businesses for which we gather data, and use data analysis to pursue our reductions in CO₂ emissions.

^{*} For calculations, we reference the Emissions Rate Index Database for Calculating GHG Emissions, etc. in an Organization's Supply Chain (Ver. 2.0).

FY2015 Scope 3 Emissions

Category	Scope 3 Emissions Categories	Emissions(t-CO ₂ e)
1	Purchased products and services	2,846,663
2	Capital goods	1,665,987
3	Fuel and energy related activities not included in Scope 1 and Scope 2	336,072
4	Transport and shipments (upstream)	254,421
5	Waste from business activities	112,798
6	Business travel	72,752
7	Employee commutes	35
8	Leased assets (upstream)	—
9	Transport and shipments (downstream)	—
10	Processing of products sold	—
11	Use of products sold	486,764
12	Disposal of products sold	58,987
13	Leased assets (downstream)	824,111
14	Franchise	—
15	Investments	8,451

TOPICS

Verification of Greenhouse Gas Emissions by Third Party

Aeon has obtained a third-party review of the Scope 1 and Scope 2 greenhouse gases for AEON Retail Co., Ltd., which is the largest producer of these emissions within the Aeon Group's core retail business.

Third party verification was also done in AEON Mall Co., Ltd. group companies in FY 2015. We will continue to receive such reviews in the future in order to enhance the reliability of our data and continue with our efforts to reduce greenhouse gas emissions.

1. Scope of Verification

•Scope 1 and Scope 2 emissions:

Energy consumption of CO₂ emissions associated with the management of 388 AEON Retail Co., Ltd. stores in Japan in the period from April 1, 2013 to March 31, 2014.

2. Methodology

ISO 14064-3(2006): Obtained third-party verification in accordance with greenhouse gases-Part3: Specifications with guidance for the validation and verification of greenhouse gas assertions.

Verified greenhouse gas emissions	
Scope 1 96,799 t-CO ₂ e	Scope 2 1,021,303 t-CO ₂ e



Generating Electricity at Stores

Generating renewable energy

[Aeon Eco Project: Generation Strategy]

The goal of building electricity generation capacity of 200,000 kW^{*} by 2020 is part of the "Generation Strategy" in the Aeon Eco Project.

In FY 2015, we installed solar panels with electrical generation capacity totaling 2,679kW in 14 of our stores, including supermarkets with flat roofs, new large-scale supermarkets, as well as convenience stores. This brings our total of stores with installed units to 916, and our total generation capacity to 56,474kW^{*}.

In addition to leading to reductions in electricity usage, thanks to captive consumption, electricity from solar panels is also being sold back to power companies through the fixed wholesale purchase system. We are reinvesting profit from electricity sales to offset increased electricity rates, contribute to our BCP, invest in the environment, and invest in renewable energy.

In FY2016, we plan to add 3,720kW of generation capacity to 65 stores.

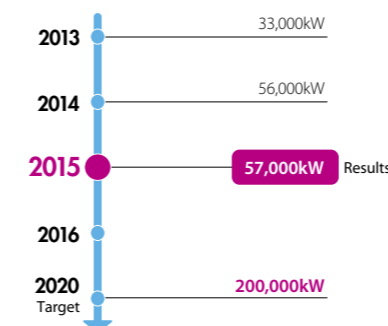
^{*} 57,000 kW is equivalent to the ability to cover the annual power of approximately 13,000 households in the common household.



Solar panel installation

FY 2015 Results and Target of KPI

Power generation capacity of renewable energy(Electricity sales only)



AEON Environmental Foundation

Donating Solar Systems to Junior High Schools

The AEON Environmental Foundation is donating solar power systems to junior high schools with the aim of promoting and spreading environmentally friendly renewable energy, and providing students with the opportunity to utilize the systems for environmental studies.

This activity started in FY2009 as a five-year project to commemorate the 20th anniversary of the founding of the Foundation. As of the end of FY2014, we have donated systems to 35 junior high schools, including schools in Japan, Malaysia, and Vietnam.

This initiative is determined to continue in the future, and it has donated solar power generation systems to 5 target elementary and junior high schools in Wuhan City, China in FY 2016.



Tan Nhut Junior High School in Ho Chi Minh City, Vietnam

Aeon Group Initiatives

AEON Retail Co., Ltd. Reform Section

Eco-Home (Uchi-Eco) Diagnosis Initiative

The Ministry of the Environment is implementing an initiative called Eco-Home Diagnosis in which accredited professionals with wide reaching experience in global warming and energy-saving home electronics use specially developed software to provide tailored advice for each household on more effective ways to reduce CO₂ and reduce energy usage in order to reduce the greenhouse gas emissions of ordinary households.

Aeon Retail, which maintains energy-saving proposals for helping consumers reduce utility bills as an important Company policy, completed its registration as a home ecology diagnosis provider so that it can carry out this policy. The company received certification in July 2014, and 110 people had passed the "Uchi-Eco" qualification test up to February 2016.

Furthermore, we conducted a diagnosis with 900 people up to June 2016 through stores and each local event.

We intend to promote energy conservation carried out in FY 2015 further by expanding the system to grant WAON points as Aeon Eco-points to customers who continue to be consulted by an "Uchi-eco diagnosis" and who have purchased specific energy-saving renovations and energy-saving equipment. In addition, we will carry out education and support towards obtaining qualifications, aiming for a system of 200 people as "Uchi-eco Consultants" in this fiscal year.



Diagnosis