Environmental Sustainability

We understand all of the processes' overall influences on the environment from value chain, raw materials, production, and transport services. Through relative creative research and developmental technology, we can produce products that are more environmentally friendly and materials that are more sustainable.

We effectively manage operational influences on the environment. This is a key point of daily operation for Far Eastern New Century. We deeply understand the influences of products' life cycles on the environment. Through relative measures and activities, we reinforce product innovation, develop more environmentally friendly products, and more sustainable materials. This creates balance between the environmental and operational achievements, and increases the competitiveness of corporations for sustainable environmental aspects.

Since the establishment of all the factories of Far Eastern New Century, we have continued to invest capital in establishing all kinds of facilities. We effectively conduct the evaluation and improvement of environmental influences of a product's lifecycle. We hold the environmental concept of "Protecting the environment, cherishing resources, integrating knowledge and activities, starting from the basics." We promise to continue to implement the following policies, to actually fulfill our responsibility of creating a sustainable environment, and create even better work and life environments.

The Sustainable Environment Policies of Far Eastern New Century

1. We comply with legal regulations and relative standards
2. We continue to improve the production processes, and be active in pollution prevention
3. We implement the reduction of industrial waste, and upgrade the efficiency of energy and resource use
4. We implement educational training, and upgrade the environmental knowledge and skills of employees
5. We continue to promote recycling and awareness of environmental protection
6. Through appropriate methods, we communicate the achievements of environmental protection to stakeholders.

Energy Saving and Carbon Emission Reducing

Energy saving and carbon emission reducing has a direct relationship with the long term operational development of Far Eastern New Century. The rise of energy costs will lead the production costs to increase as well. The strategies of energy saving and carbon emission reducing for Far Eastern New Century is to reduce the energy consumption in the factory, and continue to develop green products, from the essence of the product itself to reducing energy use and greenhouse gas emissions within the entire organization.

In order to effectively reduce the emission of greenhouse gas, internally, we executed all kinds of energy saving activities, and reduce the emission of indirect greenhouse gas. In the aspect of the products, other than using reusable raw materials (Recycling of PET bottles), and production leftovers, we also use the collection of production afterheat and fuel to reduce energy consumption.

In the aspect of action, we focus on promoting relative measures of recycling use, Energy saving, and greenhouse gas reduction. We ask all the relative departments to be responsible for environmental management work. This includes the collection and evaluation of operational activities with environmental influences. We then establish the measuring indices, and continue to conduct inspection and improvement work.

Greenhouse Gas Inventory and Reduction

Currently, all the factories follow the ISO 14064-1 standard to conduct greenhouse gas inventory. We understand greenhouse gas emissions. According to inventory results, this reference is used to promote greenhouse gas reduction activities.

We conduct analyses according to factory production procedures. We gradually promote relative greenhouse gas management and reduction plans, and do the following activities in order to reach the goal of greenhouse gas reduction.

1. Reduction of energy consumption
2. Reduction the carbon footprint of product
3. Development and learning of energy saving concepts and habits

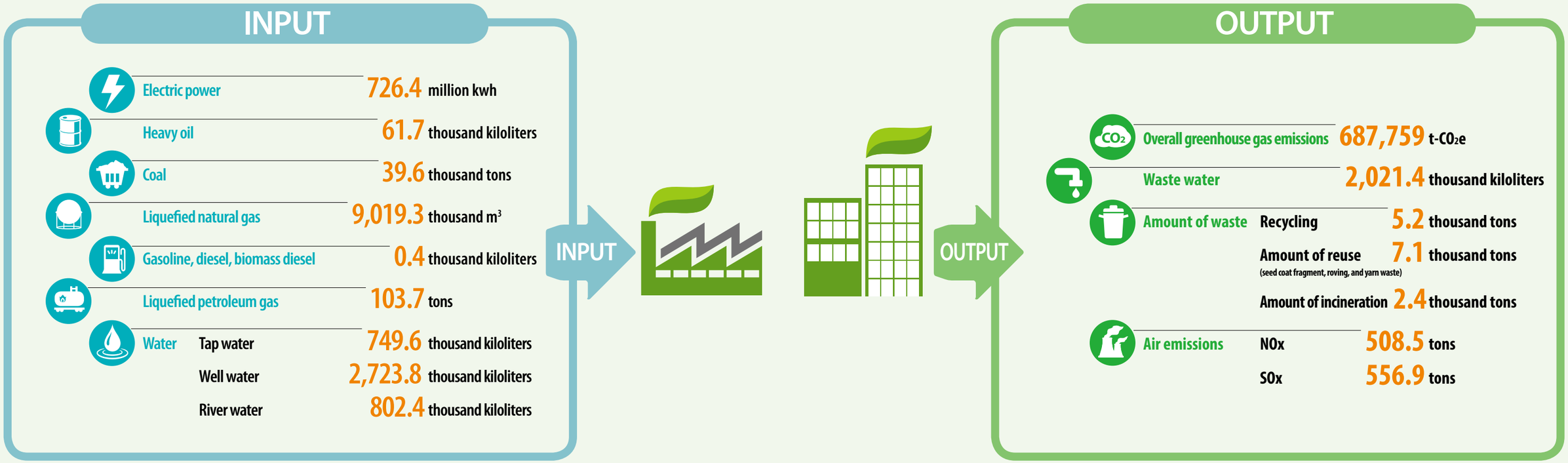
Other than promoting energy saving in the factories and work environments, in the future we will further communicate with our working partners to together fulfill the promise of reducing environmental influences, and to disclose the status of greenhouse gas and energy use.

Far Eastern New Century mainly uses electric power and heavy oil. As for the aspect of products and waste transport, employee commute, business trips, and waste processing, currently we only conduct inspection of origin of emission, and not quantification. In the future, we will consider how to quantify the carbon information emission of supply chain system according to actual conditions, and promote relative reduction work.

All the Factories Pass the Greenhouse Gas Inventory (ISO 14064-1) Fiscal Year of Verification

Units	2005	2006	2009	2010
Hsinpu Chemical Fiber Plant	●		●	
Kuanyin Chemical Fiber Plant	●		●	
Hukou Mill	●	●	●	●
Neili Texturizing Plant	●	●	●	●
Headquarters	●			

2012 Chart of Energy and Resource Use for Far Eastern New Century

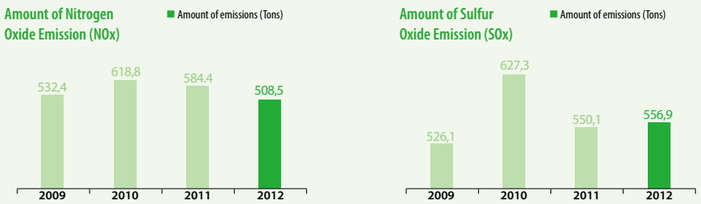


Emission of Greenhouse Gas

Categories	Units	2009	2010	2011	2012
Direct greenhouse gas emission (Scope 1)	t-CO_2e	258,573	293,538	285,563	**280,844**
Indirect greenhouse gas emission (Scope 2)		411,363	425,311	419,210	**406,915**
Total		669,936	718,849	704,773	**687,759**
Other greenhouse gases					
Amount of methane CH_4 emission	t-CO_2e	447	455	453	**479**
Amount of nitrous oxide N_2O emission		689	754	722	**670**
Amount of perfluorinated hydrocarbon PFCs emission		0	0	0	**0**
Amount of hydroflurocarbon HFCs emission		46	44	45	**45**

Remarks: Emission of air pollution includes Hsinpu Chemical Fiber Plant, Kuanyin Chemical Fiber Plant, Hukou Mill, Neili Texturizing Plant, and Kuanyin Dyeing and Finishing Plant

Air Emissions



Remarks: Remark: Emission of air pollution includes Hsinpu Chemical Fiber Plant, Kuanyin Chemical Fiber Plant, Hukou Mill, Neili Texturizing Plant, and Kuanyin Dyeing and Finishing Plant

Amount of Energy Use

Explanations: In 2012, Kuanyin Chemical Fiber Plant and Kuanyin Dyeing and Finishing Plant replaced its heavy oil boiler with a natural gas boiler.

Remark 1: Ecological benefits = Production service values (Revenue)/Environmental impact (Amount of resource use)

Remark 2: GJ(gigajoule)

Energy Saving Activities

For the manufacturing industry, the expense of energy cost is one of the keys that determines whether or not a corporation can maintain its competitiveness. For this, energy saving is not just a slogan, but a very important issue for corporate existence. In the long run, Far Eastern New Century emphasizes energy saving. Not only do we regularly conduct reports on energy saving topics, we also actively examine all kinds of conditions of energy consumption.

In 2010, Far Eastern New Century has prepared the budget of NT$2 billion. This amount is equivalent to 10% of energy cost in the previous 3 years. This is the budget for the capital expense of energy saving. In the meantime, we also established the "energy team," and executed the inspection and follow-up annual energy saving plans and budget. Overall, this exhibits our determination and goals for energy saving.

Under the promotion of overall energy saving project, in 2012, we executed a total of 98 energy saving projects. We saved a total of 21,084,298 kwh of electricity per year, 573 kiloliters of fuel oil per year, 30, 531 tons of steam per year. This is equivalent to the reduced amount of greenhouse gas emission for 22,457t-CO_2e per year. The conserving benefits is NT$ 86 million per year.

Energy Saving in Factories

Categories of Energy Saving Projects	Factories	Annual Amount of Energy Saving (Thousands of NT$)	Electrical Power Conserves t-CO_2e	Fuel Gas Conserves t-CO_2e	Steam Conserves t-CO_2e
Improvement of production procedures	Hsinpu Chemical Fiber Plant	13,285	1,034	1,086	713
	Kuanyin Chemical Fiber Plant	9	2	0	0
	Kuanyin Dyeing and Finishing Plant	2,042	0	283	0
Improvement of facilities	Hsinpu Chemical Fiber Plant	21,426	4,212	-202	1,523
	Kuanyin Chemical Fiber Plant	5,837	1,330	0	0
	Hukou Mill	5,245	1,233	0	0
	Neili Texturizing Plant	1,359	374	0	0
	Kuanyin Dyeing and Finishing Plant	5,468	8	376	648
	Headquarters	34	7	0	0
Improvement of product	Hsinpu Chemical Fiber Plant	17,260	320	0	6,385
Energy management and others	Hsinpu Chemical Fiber Plant	10,766	2,489	0	104
	Kuanyin Chemical Fiber Plant	1,619	0	240	0
	Hukou Mill	348	82	0	0
	Kuanyin Dyeing and Finishing Plant	912	209	0	0
	Headquarters	0	0	0	0
Total		85,611	11,301	1,783	9,373

Remark: Emission coefficient of 1 kwh of electricity=0.536 kgCO_2e 1 kiloliter of fuel gas=3,111 kgCO_2e 1 ton of steam =307 kgCO_2e

Taipei Metro Office Tower Energy Saving Facilities

Taipei Metro Office Tower began replacing existing light bulbs with energy saving ones in 2007 and has saved tens of thousands of kw as a result annually; 2007~2010, 229,697KWh of electricity were saved, reducing emissions of greenhouse gases by 123.1t-CO_2e/year.

In 2012, 20W energy saving bulbs were exchanged for 9W LED bulbs, saving 8,580 KWh of electricity; new type energy saving printers were also introduced, saving 4,504 KWh of electricity, a total saving of 13,084 KWh and reducing emissions of greenhouse gases by 7.0t-CO_2e/year.

Remarks: According to the Bureau of Energy, MOEA's 2011 electricity emission index, 1 KWh =0.536kgCO_2e

Thousands of Far Eastern New Century employees work around the offices and factories everyday. For this, we continue to provide guidance and events of energy saving in workplaces. We hope to develop concepts and habits of energy saving for every employee. We encourage employees to conserve all kinds of energy, and create the long term effects and benefits of energy saving.

In order to cooperate with the strategies of energy saving and carbon emission reducing, all the factories and office buildings of Far Eastern New Century continue to change traditional fluorescent lights to LED lights. Since July, 2008, we started implementing energy saving at workplaces, and stipulated relative standards. We executed the standards of 5 major categories of energy saving activities according to electricity, oil, water, food, and reduction of recycling.

Energy Saving in Workplaces

Categories of Energy	Energy Saving Directions	Activities
Electricity	Improvement of habits of electricity use	• Turn off public lighting and basic lighting during lunch break • Employees who leave their seats for over 10 minutes or during the lunch break should turn off the desk lamps • No elevator use within 3 floors • Energy saving slogans at the locations of switches of electric light and devices
	Renewal of electronic facilities	• Energy saving light bulbs replace incandescent light bulbs • Shortens the running of air conditioner for 1 hour • Turns up the temperature of air conditioner by 2 degrees • Notebook computers replace desktop computers • Purchase electric devices with green mark. For example, printers, computers, fax machines, and air conditioners, etc. • Turn on every other lamp or reduce the number of light tubes at the balcony and corridors that require less lighting. • Stop using a portion of elevators during off-peak hours.
Oil	Reduces oil consumption	• Make better use of video conferences in order to lower the expenses of business trips • Arrange shuttle buses to pick up and drop off the employees to and from work
Water	Avoid waste	• Bring water to meetings. Internal meeting ends within 2 hours, and no drinking water is provided.
	Adjusts water use facilities	• Water saving toilet bowls replace regular toilet bowls • Water saving faucets replace regular water faucets
Food	Reduces the use of tableware	• Staff dining room is prohibited to provide and use disposable tableware
Recycling and Reduction	Reduces the amount of paper use	• Terminates the use of paper cups during internal meetings • Use waste paper for unofficial documents; official documents should be printed on both sides
	Recycle and reuse	• We implement garbage classification and recycling within the corporation

Energy Saving at the Information Center

In order to upgrade facilities and improve maintenance effects and benefits, and reduce energy consumption, in 2002, the information center planned to establish a special apparatus room in the information center by using Far Eastern Tone IDC and establish the main system of Far Eastern New Century here. Each year, we have gradually been expanding it to make the VIP apparatus room for organizational use only in order to reach the goal of energy saving, carbon emission reducing and organizational synergy.

From 2011, in coordination with the completion of the establishment of The Far Eastern Group's private cloud, the main equipment of the application system of each using unit was moved to a cloud environment, achieving a 60% energy saving, at the same time concentrating operations and maintenance and thus increasing system security and stability.

The Environmental Effects and Benefits of Energy Saving by Using Cloud Hosting

	Using Independent Hosting	Using Cloud Hosting	Energy Saving	Percentage of Energy Conserved
Number of host facilities	67.0	24.0	43.0	64.2%
The amount of electric use for host facilities (KWH)	27.0	9.6	17.4	64.4%

Energy Saving for Video Conferences

In recent years, Far Eastern New Century has greatly promoted the use of video conferences. This brought benefits such as energy saving, cost reduction of business trips, prevention of infectious diseases from spreading, and response to the risks of natural disasters. For example, the regular internal meetings of the Headquarters of Far Eastern New Century adopt the video conference methods. In 2012, we conducted a total of 48 video conferences, and 5,040 people participated. (This does not include the video conferences conducted by each unit).

Energy Saving and Environmental Protection of Transportation

Regardless of raw material import or product export, Far Eastern New Century requires a lot of sea and land transportation tools to lower environmental and energy consumption caused by transportation. This fulfills the responsibility of supply chain management. When we select cooperating shipping companies, we will include energy saving of transportation as a key point of evaluation, and come up with recommendations for cooperating shipping companies to refer to. We hope to make a difference in environmental protection together.

The Main Shipping Companies of Container Export Who Cooperate with Far Eastern New Century

	Shipping Company
Domestic Shipping Company	Evergreen Marine Corporation
	Yang Ming Marine Transport Corporation
	Wan Hai Lines Limited

	Shipping Company
International Shipping Companies	Demark Maersk Line
	France CMA-CGM
	Nippon Yusen Kabushiki

The shipping companies we have chosen to cooperate are the best in the industry, which includes domestic and international shipping companies. Currently the main shipping companies implement the following measures regarding energy saving and carbon emission reducing.

The Content of	Measures for Energy Saving and Carbon Emission Reducing
Design of ships	Through the use of advanced software and hardware facilities, the shipping company lower the emission of waste of ships and lower the amount of polluted water and exhaust gas. By supervising and controling the emission of sulfide and nitride, appropriately manage ballast water, polluted water, and garbage, in order to prevent oil pollution or leakage of coolants.
Meteorological navigation systems on ships	This provides the most immediate, safe, and oil-conserving path for ships to refer to the minimum oil consumption in order to reach the goal of energy saving and carbon emission reducing.
Maritime communication satellites	Through maritime communication satellites, we can analyze the amount of daily fuel consumption of each ship, voyage information, amount of storage of oil and water tanks, and loading of cargo. We also require the fleet to upgrade the energy efficiency.
Fuel use	The host of the ship adopts a system of low sulfur fuel in order to reduce the emission of sulfide.
Loading and unloading of cargo	This upgrades the efficiency of loading and unloading facilities of ships, decreasing the time of ship detainment in the harbor and reducing the influences caused by local environments.

As for the aspect of domestic transportation, the transportation companies that are under contract with Far Eastern New Century are all well known in the domestic market. Other than asking them to comply with the quality policies of "Safe, fast, and responsible," as for the aspect of environmental protection, we also ask them to do the following:

1. Self management of car: Regularly go to inspection station and conduct inspection of smoke emissions to fulfill the requirement of pollution control.
2. The offices contain car and tire wash facilities to make sure that when cars enter and exit the factories, they will not pollute the environment.
3. For daily administrative documents, e-mails should be used more to reduce paper use.

Use of Raw Materials

The main raw materials of Far Eastern New Century are cotton, PTA, and MEG. The strategies of local purchase and use of reprocessed materials are employed to reduce the transportation, energy consumption, and greenhouse gas emissions of all kinds of raw materials. This can upgrade the efficiency of resources use, and is beneficial for the local economic development of the purchasing country.

In order to protect the ecological environment, fulfill corporate social responsibility, and satisfy the people's consumption need of green environmental protection, Far Eastern New Century cooperates and fulfills the requirement of leading brand clients and large beverage factories; we gradually introduced Bio-MEG, organic cotton, and BCI cotton as raw materials. Far Eastern New Century has received the GOTS, OE100, and OEb1 certifications for organic cotton. In the meantime, we are also official members of BCI.

In 2012, Far Eastern New Century purchased a total of 53,000 tons of cotton. 40,000 tons were original cotton, and 13,000 tons were reprocessed cotton, which took up 25% of the total purchase.

In addition PTA and MEG are the main raw materials for polyester production. Through spinning processing, it becomes polyester fiber, or PET chips. PTA is mainly purchased domestically. In 2012, the total quantity of purchase was 741,000 tons. MEG and BIO-MEG were mainly imported. In 2012, the total quantity of purchase was 305,000 tons.

2011-2012 The Quantity of Purchase for Main Raw Materials

Categories	2011 The Quantity of Purchase (Tons)	2012 The Quantity of Purchase (Tons)	Sources
Original and organic cotton	14,000	**40,000**	United States, Brazil, Australia, Africa
Recycled cotton	2,000	**13,000**	Domestic purchase, Pakistan, India, Vietnam
PTA	681,000	**741,000**	Mainly domestic purchase
MEG, BIO-MEG	288,000	**305,000**	Mainly import

2012 The Amount of Purchase for Intermediate Materials

Unit: Millions of NTS

Categories of Intermediate Materials	2011 The Amount of Purchase	2012 The Amount of Purchase
General materials	67	**60**
Machines and facilities	3,791	**2,139**
Information facilities	49	**65**
Total	3,908	**2,264**

What is "Organic Cotton?"

Generally speaking, organic cotton is mainly used for organic fertilizer, biological prevention of diseases and insects, and main management of natural cultivation. It is prohibited to be used to make chemical products. From seeds to products, the cotton is totally natural and produced without pollution. The TEXAS Organic Program stipulated by Texas, USA provides more complete definitions for organic cotton. Simply speaking, organic cotton is nurtured on the fields that have terminated the use of chemical fertilizers and pesticides for over 3 years. (Information sources: Taiwan Textile Foundation)

BCI (Better Cotton Initiative)

BCI (Better Cotton Initiative) is an international non-profit organization. The goal of its establishment it to promote effective methods of cotton cultivation, bringing out more economic effects and benefits of cotton growth, more environmental protections, and more benefits for sustained operational development. In order to benefit all the human beings on Earth, and fulfill the ethical responsibility required for a good corporation, currently Far Eastern New Century is an official member of BCI.

Green Purchasing

Green purchase is an important topic of focus in recent years. Far Eastern New Century deeply understands that the influences of purchase to the environmental achievements of corporate supply chains are tremendous. The requirement of a green standard to the purchase department and to suppliers is beneficial in boosting active research, development, and application of green technology for suppliers. We use the materials that are environmentally protective and energy saving in order to upgrade the environmental knowledge of suppliers, improve environmental behaviors, and upgrade the standards of environmental management.

For this, Far Eastern New Century defines "green purchase" as the production, procedures, and waste processing of purchased products or their raw materials. It creates less harm to the environment and consumption of resources, and less pollution.

In order to fully implement green purchase, in 2011, Far Eastern Group Purchasing Department established the "green product purchase project." This allows the concept of green purchase to be promoted and implemented to all the factories and units. Under strong promotion, in 2012, the amount of green purchase for Far Eastern New Century was approximately NT$1.3 billion.

Promotional Methods of Green Product Purchase Project

Information Collection	1. Search and get to know the relative marks of green purchase
Guidance and Promotion	2. Provides guidance and promotion to all the units and suppliers that use green purchase
Product Purchase	3. Corporations that receive the green or environmental protection and energy saving certifications have priority for purchase or increased weight

Far Eastern New Century will gradually discuss and stipulate green purchase standards as the reference for development, selection, and evaluation of suppliers in order to assure that the suppliers provide reusable, recycled, resource-saving, and healthy green products. In the meantime, we required the suppliers to supply raw materials, production skills, production processes, production channels that meet the green principles to actively fulfill the social responsibility of supply chains.

What is "Bio-MEG?"

Currently the MEG produced in the petrochemical industry is refined from petroleum. The biomass materials replace petroleum as raw materials. MEG that is obtained from the transformation of starch and plants is Bio-MEG.

Water Resources Management

Through the increase of frequency of climate anomaly, Taiwan is also facing the risks of inability to balance the supply and demand of water resources. This includes factory construction and daily operation possibly facing a lack of water resources. Because of this, Far Eastern New Century actively tries to our best to control water resources during daily operations.

In order to fully use water resources, we not only actively increase the regenerated use of water resources through the improvement of facilities and skills, we also encourage all the factories to continue to strength their research to respond to the possibilities of higher water prices.

Currently, the main water resources at all the factories of Far Eastern New Century are tap water and well water sources. In Hsinpu Chemical Fiber Plant, we also use river water sources. In recent years, we actively promote water conservation and search for the best way to control water use and management to reduce the influence of water source consumption on the environment.

Condition of Water Resource Use

Categories	Units	2009	2010	2011	2012
Quantity of tap water use	1,000 Liters	712,974	703,653	640,180	**749,569**
Quantity of well water use	1,000 Liters	2,981,385	3,161,097	2,946,714	**2,723,846**
Quantity of river water use	1,000 Liters	894,767	866,251	792,902	**802,361**
Quantity of total water flow	1,000 Liters	2,468,779	2,632,214	2,608,659	**2,021,440**

Remark: Water source use statistics include Hsinpu Chemical Fiber Plant, Kuanyin Chemical Fiber Plant, Hukou Mill, Neili Texturizing Plant, Kuanyin Dyeing and Finishing Plant, Far Eastern Group R&D Center, and Headquarters. Only Hsinpu Chemical Fiber Plant uses river water, and it does not use tap water. Headquarters uses tap water only and does not have the statistics of total quantity water flow.

Effluent Processing

All the effluent at all the factories of Far Eastern New Century is appropriately processed by effluent processing facilities; the water is emitted, and the water quality meets current legal policies and standards. We assure that the surrounding environment is not evidently impacted by water. In 2012, there were no incidents of severe leakage or flooding.

The effluent process methods are different according to the characteristics of the factories. Kuanyin Dyeing and Finishing Plant adopts the biological and chemical processing methods for effluent processing. Hsinpu Chemical Fiber Plant uses the second grade of activated sludge processing. In the meantime, we have established the carp pond that uses effluent as feed, and is used as the index of effluent organisms.

In addition, Far Eastern New Century Hsinpu Chemical Fiber Plant promotes the RO concentrated water recycling and reuse plan. It is used in non-drinking water and daily water use systems in the factories. In 2012, the quantity of RO water recycling at Hsinpu Chemical Fiber Plant was 869,534 liters. It took up 32% of the total water use ratio.

Statistics of Water Source Recycling and Reuse at Far Eastern New Century— Takes Hsinpu Chemical Fiber Plant as an Example

Categories	Units	2009	2010	2011	2012
Total quantity of recycled and reused water (A)	1,000 Liters	658,095	732,920	796,795	**869,534**
Total water use (B)	1,000 Liters	2,497,603	2,638,511	2,587,029	**2,747,887**
(A)/(B)	%	26%	28%	31%	**32%**

Chemical Materials Management

In order to fulfill the sustained environmental policies of Far Eastern New Century, and reduce the hazard to the environment and maintenance of the health of staff, for relative chemical materials that are risky, all the factories stipulated strict managerial processes and procedures in order to implement control. In 2011, the Hsinpu Chemical Fiber Plant conducted "the chemical product storage/safety use evaluation." It includes the improvement of raw material/waste storage space, establishment of regional managers and emergency contact phone number, and isolation and storage of special materials.

As for newly purchased chemical products, we use chemical product compatibility software to conduct incompatibility analysis. The establishment of a new chemical product control mechanism should pass the evaluation of Labor Safety & Health Department to assure safety. In 2012, we further established the electronic form filling system. All the units upload the information of chemical products and conduct systematic management.

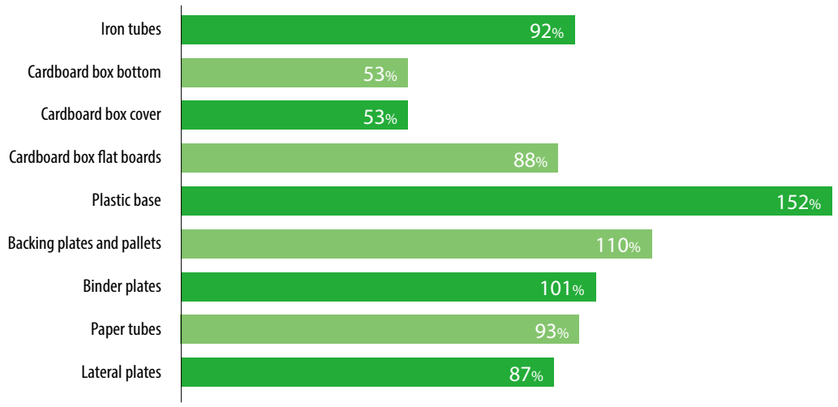
Now Far Eastern Group R&D Center uses 21 toxic chemical substances and 2 industrial raw materials of precursor chemicals. In 2012, 738 kg were used and stocks totaled 279kg. They are stored in a locked cabinet and are the responsibility of specially appointed personnel.

Recycling of Packaging Materials

Packaging can assure the safety of product transportation. It will eventually become waste, and it uses more resources to process. For this, Far Eastern New Century takes up the responsibility of recycling of packaging materials in order to avoid environmental risks brought by inappropriate processes when packaging materials are used. This greatly reduces negative impacts on the environment.

The items of packaging material recycling for Far Eastern New Century mainly comes from industrial fabrics, iron tubes and cardboard boxes at chemical fiber plants. In 2012, the quantity of recycled industrial fabrics and iron tubes were 354/per month in average. The recycling ratio is 92%. As for the chemical fiber plant, the recycling ratio for packaged material is cardboard box bottoms, at 53%, flat boards 88%, plastic base 152%, backing plates and pallets 110%, binder plates 101%, paper tubes 93%, and lateral plates 87%.

2012 Status of Packaging Material Recycling



Waste Processing

Regarding waste management, Far Eastern New Century emphasizes the reduction of corporate waste. We strictly comply with relative legal policies of all kinds of waste and elimination of pollutants, and fully execute waste management. In addition, we promote internal guidance at all the factories. Not only do we implement recycling and reduction concepts, under the foundation of feasible technology and economic cost, we also hold the principles of reduction, recycling, and reuse, in order to reach the goal of waste reduction.

Categories		Units	2009	2010	2011	2012
Total quantity of recycled and processed waste		Kilograms	5,385,306	5,177,745	5,590,259	**5,168,057**
Total quantity of reused and processed waste	Seed coat fragment	Kilograms	989,246	2,327,411	2,665,081	**2,256,009**
	Roving	Kilograms	272,425	125,993	126,919	**152,144**
	yarn waste	Kilograms	3,227,564	6,155,446	5,746,514	**4,729,958**
Total quantity of incineration processed waste		Kilograms	2,210,338	2,836,909	2,715,834	**2,441,768**

Remark: Recycled and processed waste includes Hsinpu Chemical Fiber Plant, Hukou Mill, Neili Texturizing Plant, Kuanyin Dyeing and Finishing Plant, and Far Eastern Group R&D Center.

Far Eastern New Century is not involved in waste processing and recycling. For this, we maintain good cooperative relationships with external units, in order to execute high efficiency of waste processing and recycling. The current processing methods of Far Eastern New Century is that production unit takes scrap iron, scrap stainless steel, scrap aluminum, scrap cable, scrap plastic, scrap PP, and PE to services department for sale and processing. The scrap clothes are recycled by the companies and the dyeing auxiliary is recycled by the suppliers.

Regarding the reduction of life waste and recycling measures, we provide guidance and clear labels with, for example, scrap light tubes, scrap paper, scrap iron, scrap plastic drums, scrap PP, and scrap EE, etc. Our goal is to put our best effort into recycling and garbage reduction.

Noise Prevention

The partial production processes of chemical fiber and textile plants of Far Eastern New Century can produce noise. We especially reinforce the noise prevention educational training of employees. When employees enter noisy workplaces that are over 85 decibels, will put up warning and hazardous labels, and they are required to wear earplugs. The environmental safety staff will conduct irregular inspections of the factories to assure that they will not be influenced by the noise.

As for the facility improvement, other than installing silencers and mufflers on the exhaust vent, we also grow trees in the factories in order to reduce the noise, reinforce the friendly neighbor measures, and stipulate inspection methods and policies according to work environments. Each year, we focus on the workplaces and conduct environmental inspection of noise and volume to understand the noise conditions of the work environment. In addition, the field unit and safety and health unit work together Council of Labor Affairs, and Northern Region Inspection Office to discuss the improvement strategies, use the improvement methods of construction of adding a control room in the expanded areas, in order to reduce the problems of noise exposure of the employees.

Results of Environmental Improvement in 2012

Far Eastern New Century holds the spirit of cooperating with national policies, improving environmental quality, reducing environmental pollution, cooperating with the spirit of ISO, and continuing with the improvement of labor safety and environmental protection, all in order to upgrade the efficiency of air pollution prevention facilities.

In 2012, the Environmental Protection Administration found out that there was a peculiar smell and water quality surrounding Hsinpu Chemical Fiber Plant. We were fined NT$ 310,000 because air and water quality inspections exceed the tolerated values. This time the air sampling location is on a hillside conservation zone. The standard of peculiar smell is 10. The Hsinpu Chemical Fiber Plant is in close vicinity of 118 County Road. The standard for industrial land is 50, but is reduced considerably to 10. Afterwards, we petitioned with the Environmental Protection Administration and they agreed to re-plan future sampling locations.

	2012
Categories of pollution	Air and water pollution
Articles of compensation or penalized units	Environmental Protection Administration
Compensated amount or penalty situation	NT$316,000
Other losses	None

Improvement Project of Peculiar Smell at Hsinpu Chemical Fiber Plant

In order to improve the problems of peculiar of Hsinpu Chemical Fiber Plant, in 2012 we established many managerial policies:

1. VOCs (Volatile organic compounds) inspection: When the inspected value is too high, we immediately check if there is leakage, and continue to conduct inspection until the values improve.
2. Peculiar smell of rain channel: Because peculiar smell will spread from the rain channel, rain channels within the factories are adopted by respective units, who are responsible for cleaning them.
3. Equipment components increase prevention facilities: We increase coating at the emission channels to reduce the emission of peculiar smell.

Externally, we actively work together with external academic units, analyze and confirm pollutants, and maintain good communication with the government and community residents in order to fully exhibit the desire of improvement on our side. After the improvement project is executed, people who petitioned to the environmental protection units have decreased from an average of 8.5 cases/per month in 2012 to an average of 2.7 cases/ per month in the first quarter of 2013. The achievement of improvement is evident.

Environmental Protection Coordination

On November 15th, 2012, the Environmental Protection Administration conducted the petition communication meeting at the Mother Nature community at the Hsinpu Chemical Fiber Plant Recreational Center. The participants included representatives from the Environmental Protection Administration, Environmental Protection Bureau, residents, professors from National Chiao Tung University , professors from Yuanpei University, and experts from the Industrial Technology Research Institute. The factory exhibits the determination of improvement and achievements of effort, and receives favorable comments from environmental protection experts and government officials. This brings closer communication between the factory, community neighbors, scholars, and experts.