

Green TECO, Green Technology

TECO

2011

CORPORATE SOCIAL RESPONSIBILITY REPORT



2011

TECO



About the Report

The report is the third edition of the report on corporate social responsibility of TECO Corp. , which covers issues concerned by various related parties. The report puts forth various acts and performance figures of the company in the fields of environmental protection, corporate governance, and social participation during the period from Jan. 1 to Dec. 31, 2011, with the coverage for some contents extended to 2012. Financial figures are denominated in New Taiwan dollar and performances for environmental protection, health, and security are expressed with indices in common use worldwide. The contents of the report cover only the company's factories in Taiwan, excluding overseas areas, affiliates, and subsidiaries, but the contents for environmental performance covers subsidiary Tesen Co. in the Kuanyin factory compound, which manufactures home appliances.

In compliance with international practice, the report embraces G3 Guidelines of Global Reporting Initiative (GRI) for its framework.

Both Chinese and English versions of the report are available on the company's website.

Interval for the issuance of the report: once a year

Last issuance: July 2011

The report is produced by the Safety & Health Dept.

Address: 5F., No. 19-9, San Chong Road., Nan Gang , Taipei, Taiwan, R.O.C

Tel.: 886-2-2655-3333

Company website: <http://www.teco.com.tw>



CONTENTS

1	1.1 Letter from the Chairman.....	1
2	2.1 Company Profile.....	2
	2.2 Vision and Objectives.....	2
	2.3 Products and Services.....	3
	2.4 Identification and communication with related parties.....	11
	2.5 Organization Structure.....	12
	2.6 Corporate Governance.....	13
	2.7 Participation in associations and other organizations.....	14
	2.8 Awards and Recognition.....	15
3	3.1 Development of Green Energy.....	16
	3.2 Product Innovation and Energy Efficiency.....	18
	3.3 Environmental, Safety and Health.....	22
4	4.1 Employee Structure and Employment.....	32
	4.2 Employee Communication.....	34
	4.3 Training and Development.....	35
	4.4 Health and Safety.....	39
	4.5 Rights and Welfare.....	40
5	5.1 Health and Safety Impact during Product Life Cycle.....	42
	5.2 Product Information.....	43
	5.3 Custom Satisfaction.....	44
	5.4 Supply Chain Management.....	45
	5.5 Quality Control System.....	46
	5.6 Service System.....	48
6	6. Society Caring.....	49
	6.1 TECO Award Set up the Model of Technology Humanities.....	51
	6.2 Accumulating Social Innovation Power.....	51
	6.3 Cultivating Creative teachers for Remote Counties.....	52
	6.4 Sustainable Support ing to Indigenous Tribes—“Exclamation Mark”.....	52
	6.5 Remote County Learning Program.....	53
	2011 Activities of TECO Technology Foundation.....	55
7	7.1 GRI index.....	58

1.1 Letter from the Chairman

For corporate sustainable development, TECO focuses on three major themes: economic development, environmental protection, and materialization of public services by considering the factors of economy, environment, and humans.

1. Economic development:

Based on the strategies of new organization, new market, and new products, as well as new mindset, TECO will adhere to the management concept of integrity and steadiness and make an all-out effort to grasp business opportunities deriving from economic growth and achieve indicators of economic performance, thereby coping with the changes and uncertainty of the economy.



董事長 劉世凱

2. Environmental protection:

In addition to energy conservation, carbon abatement, and waste reduction in production, TECO will spare no effort in developing high energy-efficiency and variable-frequency control products for the sake of energy conservation. Regarding new energy, it focuses on the development of wind power, achieving economic development and environmental protection at the same time.

3. Public services:

Based on the principle of “contributing what you get from the society to the society,” TECO set up TECO TECHNOLOGY FOUNDATION in 1993, carrying out social-caring events in the aspects of sci-tech and humanistic assistance, creativity education, sustainable education for aboriginals, and humanistic and artistic activities, in the hope of contributing to, as well as inspiring, social stability.

TECO regards the aforementioned three directions as the core of its development strategy, urging its entire staff to strive for their achievement, so as to attain the vision of sustainable development.





2.1 Company Profile

Founded in 1956, TECO is headquartered at 5F., No. 19-9, San Chong Rd., Nan Kang, Taipei, Taiwan, R.O.C. TECO is a listed firm, with major businesses including industrial appliances, home appliances, information technology, communications, electronics, key components and parts, and wind turbine. It is also extending its operation to infrastructural engineering, financial investment, and dining, in addition to taking part in major engineering projects of the nation.

Over years, TECO has worked its way from traditional industrial appliances and home appliances industries toward a globalized high-tech enterprise. Presently its business domain spans across 30 countries in five continents and the business partners include GE of US, Yaskawa of Japan, Westinghouse of US, Ericsson of Sweden, Mitsubishi of Japan, NEC, SIM-Drive, Kodak Eastman of US and G&D of Germany.

In the future, TECO will continue to dig deeper in the field of its core business, developing in the direction of high added values like smart products. It will also endeavor to develop high-tech businesses and focus on the exploration of international new markets, to construct, by diversified operation, a macroscopic, high-quality and technologic world-class brand.

2.2 Vision and Objectives

TECO Electric & Machinery's vision for business sustainability is "Zero Pollution Environment, Zero Incident Workplace." Being a member of the earth's eco-system and human society, TECO will constantly augment the company's value with rightful business, steady with innovating spirit, and comply environmental and safety regulations. In the meantime, TECO will generate benefits for TECO's stakeholders in a wide range from shareholders, employees, customers, business partners to communities, governments, even to the whole general public while the company's business activities go on, to endeavor to be an excellent corporate citizen.



2.3 Products and Services

The company's main products are classified into four major categories: large and small motors, power equipment and system controller, such as variable-frequency drive and control, home appliances, such as air conditioner, TV, refrigerator, and washing machine, and wind power. The company also undertakes other businesses, such as air-conditioning engineering, power-related engineering, and various chip cards.

Motors, Pumps,
Compressors



Industrial Controlling Products,
Instrument Products



Wind-Power
Products



Home and Business
Appliance Products



2.3.1 Operation Status

In the first half of 2011, the global economy scored a moderate growth but it slackened in the second half, due to impact of the European- and U.S.-debtcrisis and the Thai flood. Despite the economic fluctuation and uncertainty, the company still fully grasped the opportunities of economic growth and raked in net profits which are the highest in recent years.

Of the current operating income, heavy electrical and electric-control products account for 59%, followed by home appliances and air conditioners with 27%, engineering works with 8%, and others with 6%.

Analysis of the company's business performance in 2011 follows:

Unit: NT\$ thousand

Item	2011	2010	Chang
Net revenue	25,798,135	23,244,789	11%
Operating income	1,182,535	978,079	21%
Net profit	2,783,209	2,491,686	12%

2.3.2 Market and Marketing Analysis

2.3.2.1 Main Products Marketplace

The company is shipping industrial products to such major regions as America, Europe, Japan, Australia, China and Taiwan, and targets to extend the reach to the Middle East and India. Home appliances are shipped mainly to the domestic market, with minor markets including Australia, Southeast Asia, and Singapore. For wind-power products, in addition to the Chinese market, the company is set sight on the markets of Southeast Asia, New Zealand, and Australia, where awareness of clean energy has emerged.

2.3.2.2 Market Share

1. Industrial Product

The company boasts 50% domestic market share in general purpose sector and also offers customers custom motor featuring special usage and specification, with the capacity reaching 30,000 horsepower in induction motors, ranking Top 5 around the world.

2. Win-power business

The first win-power turbine was erected in Inner Mongolia of China in 2010 and completed linkage with grid of power generation in March 2011. Also, the company completed win-turbine certification, and arranged LVRT (low voltage ride-through) certification in China, fulfilling whole-year power generation under rigorous environment. Successfully forayed into Southeast Asian market in 2011 and obtained orders in Vietnam.



3. Home Appliances and Air Conditioners

The company is one of the Top 3 makers of home appliances and air conditioners in Taiwan, with market share reaching 9% for household air conditioners, 14% for refrigerators, 15% for washing machines, 10% for LCD, and 35% for commercial-use air conditioners.

2.3.2.3 Supply & Demand and Growth for the Future Market

1. Industrial Product

TECO originated from motor production, which has remained a core part of the company's operation, offering the dynamism for Taiwan's industrial development. After years of effort since the company's inception, it has set up various production and marketing bases through the world. It ranks among the world's top five heavy-electrical equipment suppliers and has hit world-class level, in terms of quality, variety, production scale, and sales channel.

In 2011, thanks to rapid global economic recovery, demand for low-voltage motors surged, overstraining supply. Plus pickup in the demand at the cement and steel sectors, sales grew over 10% in volume in the year.

In 2012, the company will continue strengthen marketing and production integration, so as to boost market share and cut cost. It will also develop new products, continue integrating domestic and overseas resources in tapping the OEM market, and solicit public construction and domestic and overseas engineering projects, in the hope of achieving double-digit growth.



2. Wind-Power Business

Due to global warming and drastic climate changes, countries worldwide have begun to emphasize the use of renewable energy by setting up development goal for renewable energy, in order to cut emission of greenhouse gases. Among renewable energies, wind power is most cost-effective. Therefore, the European Union targets raising the share of wind power to 50% of total electricity supply by 2030.

Despite its high entry barrier, TECO is ready to tap the market by integrating its solid R&D strength in the fields of machinery and electricity. The company has successfully made inroads into the wind turbine assembly market in the U.S. and has developed 2MW permanent-magnet wind-power turbine bearing own brand, the first such product made by Taiwan which boasts high local content rate. This wind turbine system boasts solid structure and complete lineup, capable for meeting the needs of areas featuring strong typhoon or cool climate, suits both 50/60Hz enabling global use, and can easily meet the rigorous demands for connection to grids of countries worldwide.

TECO will root its wind power business on Taiwan and set sight on China, combining Taiwan's advantage in quality control and China's huge market potential. It will establish wind turbine assembly plants near wind farms and foster local supply chains, so as to save on transportation cost and facilitate the management and maintenance for up to 20 years, thereby augmenting the utilization rate of wind turbine and maximizing profits. In addition, the company will integrate cross-Taiwan strait technological strength in the joint development of next-generation offshore wind turbine which suits the Asian climate.



3. Home Appliances

Growth of market demand for home appliances is limited, since they are mature products. In addition to existing products, the company will develop or introduce new products with high added value or key components/parts, such as large-size (52" and larger) LCD TV, LED TV, inverter refrigerator with high EF value, multi-temperature-layer refrigerator, DD inverter washing machine and external-rotor motor (key component), photo-catalyst air purifier, DC inverter air conditioner with high COP value, inverter electric-control substrate (key component), remote-control SAA(Smart Appliance Alliance) air conditioner, and air conditioner with nano bamboo-charcoal filter and other home appliances with health appeal. The purpose is to expand sales channel and increase revenue and profit with differentiated products.

Meanwhile, the company has been constantly rolling out new models for industry-use air-conditioning and freezing products, such as package air conditioner, central air conditioning equipment, flooded water chiller, centrifugal water chiller, inverter multi-evaporator VRF air conditioner, and train air conditioner, thereby creating optimal and the most comfortable workplace for domestic and overseas industries. The company also offers various air-conditioning and freezing engineering service with cutting-edge technology, to help with industrial upgrading.

Along with the development of new technologies and the increasing convenience of the Internet, information products have integrated with home appliances, giving birth to information appliances. The company will marry its decades-long experience for home appliances with cutting-edge information technologies of the members of the group in developing information appliances suited to market needs, thereby creating every larger profits for shareholders.



Besides domestic market, the company has also made major inroads into the international market, following years of strenuous effort, especially for LCD TV and air conditioner which have enjoyed very good sales to Southeast Asia, Australia, and Europe. In the future, along with increase in national income and the advent of the information age, the company will continue to launch various even more human-friendly new products, so as to meet market demand.

2.3.2.4 Market Risk Evaluation: Competitive Niche, Favorable and Unfavorable Factors and Countermeasures for Development Vision.

1. Industrial Product

The company's industrial product has won very good reputes, in terms of quality and function, in the industry. It has established a far-reaching operation network on both domestic and overseas fronts, including production and marketing bases in the U.S., China, and Southeast Asia, and marketing offices in Japan, Europe, and Australia. However, rapid change in the business climate and the transformation of economic conditions and industrial structure has posed major challenge to the company's future development.

Favorable and unfavorable factors for industrial product business, along with countermeasures follow:

a. Favorable factors

- Good brand image
- Higher production scale and market share than peers
- Solid market channel
- Reliable quality
- Complete product lineup
- Huge market potential of the greater China market, for which the company has established a firm foothold in China

b. Unfavorable factors

- Low-price competition from imported products in the domestic market due to WTO membership
- Market saturation leading to price competition among machinery firms and increasingly rigorous demand for price and delivery by buyers
- Transplantation of traditional machinery firms to China and other countries, due to their declining competitiveness and demand of emigrated downstream customers

c. Countermeasures

- Reduce cost, shorten delivery schedule, enhance competitive edge, and boost market share.
- Accelerate new-product development, develop products with high added value, and establish a production system featuring cross-strait division of labor.



- Increase overseas marketing offices and establish an effective service network.
- Strive for emerging business opportunities related to environmental production and energy conservation.
- Join hands with foreign engineering firms in soliciting project orders.

2. Wind Power Business

a. Favorable factors

- The company has established good reputation for industrial product in the field of wind-power business, capable of achieving synergy effect readily by integrating the resources of the group.
- The U.S. subsidiary already has the experience for contract assembly of complete wind turbine, which can be copied in any other region of the world.
- The company boasts complete product lineup and cutting-edge technology, capable of meeting the rigorous demands for connection to grid in the future. Its products suit both 50/60Hz, facilitating logistics work and cost control.
- The company has sound communications channel with its affiliates worldwide, enabling it a firm grasp of the latest development in renewable-energy laws/regulations and demands of grids worldwide.

b. Unfavorable factors

- Insufficient domestic supply chain for components and parts of wind turbine, complicating the effort for cost/delivery control
- Shortage of domestic R&D talents for wind turbine, impeding technological development
- Saturation of domestic onshore wind power market and difficulty in obtaining the testing ground, which postpones certification schedule
- Chinese wind-power equipment firms resort to low-price competition to tap the overseas markets, thereby disrupting the market order.

c. Countermeasures

- Set up Asian supply chain by utilizing the wind-power production capacity of China and Korea, thereby gaining a local edge.
- Establish joint R&D team with Industrial Technology Research Institute, capitalizing on the latter's electrical-machinery talents to facilitate technological development, and solicit Chinese talents released from its tightening policy, to facilitate deployment in the Chinese market in the next stage.
- Seek legal testing grounds on both sides of the Taiwan Strait and tap the Chinese market via strategic alliance with China Datang Corp. and Xiang Tan Electric.
- Set up logistics team to strengthen local services and cut maintenance cost.
- Take advantage of Taiwan offshore model wind farm, tap related domestic resources and integrate the relative strength between Cross straits to develop the technology which can adapt to the unique environment in Taiwan Strait.



3. Home Appliances and Air-Conditioning Business

a. Favorable factors

- TECO can capitalize on its good brand image and support of the group's resources, facilitating the demonstration of synergy effect.
- The company has pioneered the rollout of around-the-clock service and expanded its sales channel, strengthening its competitive niche.
- The company has joined "The R&D Alliance of the Smart Home-Appliances Industry," giving it a ready access to information on smart home appliances and online digital communications technology.
- Conform to MIT logo and first-tier energy-saving model, one step ahead of peers.

b. Unfavorable factors

- Home appliances/household air conditioning market has saturated, featuring acute competition and low margin.
- WTO membership entails tariff cuts, bringing in competition from renowned brands of Japan, the U.S., Korea, and China.
- The Taiwanese market is limited in scale and it's difficult to develop the global branding, due to high expense for marketing own brands and insufficient price competitiveness.
- Competition from hypermarkets and chain sales channels impacts the traditional channel of agents.
- The current of bilateral or regional free-trade agreements in recent years has posed major challenge to Taiwan.

c. Countermeasures

- Expand product lineup and cut cost via OEM (original equipment manufacturer) strategic alliance, thereby raising market share.
- Capitalize on China's low-cost edge and embrace SKD (semi knock-down) production mode, so as to boost the cost competitiveness of some products.
- Grasp product development trend in domestic and overseas markets via the operation of product panel and new-product review sessions, thereby introducing innovative products timely.
- Plan differentiated products tailored to the needs of the targeted customers of different channels.
- Step up assistance for agents for strengthening their management and store outlets, thereby enhancing their competitiveness.
- Establish directly owned store outlets gradually.



2.4 Identification and communication with related parties

Via the experience and discussion of various departments, TECO identifies major related parties as in the following diagram and establish good communications platform for their concerned issues as in the following table:



Related Parties	Concerned issues	Communications channels
Shareholders	Management performance Financial transparency Risk management	Investor news on Corporate website Annual report Shareholders' meeting
Employees	Pay and fringe benefits Education, training, and promotion Workplace environment Labor-management relationship Corporate vision	Labor-management meeting Safety and Health Committee Proposal for improvement Safety, Health and Environment Zone Corporate bimonthly organ
Customers	Product value Energy and environment Service	Dedicated line for customer service Meeting with dealers Questionnaire study
Suppliers	Corporate operation Order management Quality management	Evaluation of suppliers Auditing of suppliers Contact for procurement
Local Communities	Environmental protection Public services	Attendance of meetings Assistance to events
NGO	Labor conditions Environmental protection Communications with related parties	Disclosure of non-financial information Attendance of meetings Assistance to events
Government	Regulation compliance	Attendance of seminars Various auditing and reporting

2.5 Organization Structure



2.6 Corporate Governance

A sound board of directors is indispensable for the implementation of corporate-governance system. According to related regulation, TECO has instituted independent directors to supervise the execution of various operating plans and compilation of financial statement, so as to augment the objectiveness and independence of the board of directors. During the shareholders' meeting on June 18, 2009, TECO instituted, for the first time, one independent director for taking part in the company's management and the operation of various committees.

In order to establish the good governance system of functional committees, strengthen auditing and supervising function, and intensify management for achieving the goal of corporate governance, the board of directors passed the revision of the corporate charter on March 16, 2011, which calls for changing the number of independent directors, instituting auditing committee, and formulating regulations for the committee to exercise the power of supervisors. The stipulations concerning supervisors would be terminated, following the formation of the auditing committee which consists of independent directors.

According to the corporate charter, the shareholders' meeting of the company on June 15, 2012 elected the 23rd board of directors, which consists of 15 directors (including three independent directors). Then, the three independent directors formed the auditing committee.

In order to strengthen the company's compensation system for directors, supervisors, and managerial staffers, TECO already decided to set up "compensation committee" in August, 2011 and formulated "organizational charter for the compensation committee."

Discipline of the management is an important foundation for corporate governance. To assure compliance of the company's directors and managerial staffers with the company's good traditional ethical standards, the company formulated "ethical standards for behaviors of directors and managerial staffers" in December 2011, which is based on the "reference example for the formulation of the criteria of ethical behaviors by listed companies." The company's "ethical standards for behaviors of directors and managerial staffers" regulates the behaviors of directors and managerial staffers in various aspects, including prevention of conflict of interests, avoidance of seeking own benefits, information confidentiality, fair trade, and regulation compliance, in the hope of upholding the corporate governance system and supervisory function of the board of directors.

TECO chairman doesn't undertake administrative duties.

The board of directors sets up auditing section, responsible for assisting organizational identification, evaluating major risk exposure, and improving risk management system. The auditing section carries out regular auditing according to annual plan and auditing for specific cases when necessary. After completing auditing operations, it would produce auditing reports for submission to the auditing committee and the board of directors, so as to materialize the spirit of corporate governance.



2.7 Participation in associations and other organizations

TECO actively takes part in the activities of associations and other organizations by carrying out information exchange or undertaking key positions, so as to keep close contact with peers. Those associations and other organizations include:

- Taiwan Power Electronics Association
- Chung-Hwa Railway Industry Development Association
- Taiwan Refrigeration and Air-Conditioning Engineering Association
- Taiwan Electrical and Electronic Manufacturers' Association
- Taiwan Association of Machinery Industry
- Taiwan Automation Intelligence and Robotics Association
- Taiwan Nuclear Grade Industry Association
- Taiwan Electrical Contractors Association
- Taiwan Wind Energy Association
- Taiwan Wind Power Equipment Industry Association
- East Asia & Western Pacific Power Industry Association
- Chinese Society for Quality
- Chinese National Association of Industry and Commerce
- Council for Industrial and Commercial Development
- Chinese National Federation of Industries
- Taiwan Industry and Commerce Association
- Taiwan Atmosphere Protection Association
- Taiwan Business Council for Sustainable Development
- Industrial Safety and Health Association



2.8 Awards and Recognition

- TECO motor won the honor of “Taiwan’s top 100 brands” from the Ministry of Economic Affairs.
- TECO won “A” grade in the evaluation of information disclosure by listed firms from Securities and Futures Institute.
- The company’s wind-turbine department won “2011 group award for excellent technology management.”
- The laboratory of the power business department passed the certification of Taiwan Accreditation Foundation.
- The company won the 19th Taiwan Excellence Award for four motors, four variable-frequency drives, one wind-power turbine, and four home appliances.
- The company won 16 patents.



3.1 Development of Green Energy

3.1.1 Current Development

Wind energy is literally the world's primary target of renewable energy development and has developed very rapidly, with an average annual growth rate of 28 %. In 2007, the Strategy Review Board of Executive Yuan officially took wind energy as one of the prioritized items of promotion for renewable energy. The building of system integration technique for commercialization of wind turbine has become the primary goal in the next stage for the industry. Currently, even some Taiwan industries own the OEM technology of wind turbine parts, but most of the wind turbines are imported in Taiwan due to lacking of key technical capability. As the result, it is still impossible to supply the integrated wind power technology to both domestic and overseas markets.

The 2011 new announced rate of renewable energy wholesale purchase price of on-land wind power has been increased 9.67% compare to the wholesale purchase price last year, while offshore wind power wholesale purchase price is substantially higher than last year which has been increased 32.5%. It is expected future wind power will play a more important role in renewable energy since the Japan Fukushima nuclear power plant crisis.

With the specialized techniques already obtained, TECO combines Taiwan's leading firms to initiate the "Wind Power System Development Alliance of Taiwan". The Alliance will introduce more devotion to the wind power projects, and try to upgrade Taiwan's new green energy industry to next generation.

TECO own-brand 2MW wind turbine system has been connected to the grid in Mongolia and obtained performance data. The orders from Mainland China and south-east Asia of TECO wind turbine system are actively negotiating. It is expected that would be a huge contribution to TECO's revenue in the future.



3.1.2 Features of Product

The company extends its existed core technique of motors and electric control to become a supplier of wind power generators and power converter. The US TECO-Westinghouse Motor Company (TWMC) injects funds to the setup of wind turbine assembly plant to grab the OEM business opportunity in the US market and to deploy the global supply chain. This recent introduction of wind power system techniques will boost TECO's technical strength in the field of alternative energy.



(TECO own-branded large wind turbine, FC2000/2MW)



(TECO TFC 2000 wind turbine in Mongolia)

3.1.3 Results and Future Goal

About the OEM of power converter of wind power, the sales in 2010 has been grown 30%. Horizontal axis smaller wind turbine 1~3KW series were developed in 2010. TECO have finished the horizontal axis 10KW and 20KW models with key components' trial run in 2011. At the 4th quarter in 2011, the relevant test certifications would also be proceeded. The company expects huge growing chances in 2012.



3.2 Product Innovation and Energy Efficiency

3.2.1 Current Development

Global warming issue is getting serious, so making good use of technology to mitigate the climate change has become a core strategy of TECO's operation. Besides green energy development, the improvement of energy efficiency by the entire society is a major direction. All advanced countries are trying to concentrate on the development and arrangement of this energy field.

The company has focused and made efforts in developing high-efficiency and energy-saving products in recent years, and has achieved certain levels in special techniques in different field. "Smart energy saving" is always the core idea in product design. The main products of recent development include the eye-catching IE4 super high-efficiency motor with performance exceeding EC standards, and the full range of energy saving home appliances.



3.2.2 Features of Product

In 2012, the company's high-efficiency motors have met the quality standards in various countries, including NEMA Premium in the U.S., EuP directive of the European Union, GB 18613-2012 version of mainland China, and CNS 14400-2012 version of Taiwan.

Backed by 56 years of experience for the development, design, and manufacturing of motors, TECO boasts complete lineup for high-efficiency motors, including IE1-IE3, IEC, and NEMA, which are shipped to five major continents in the world and rank first place in market share in Taiwan, Southeast Asia, and Canada. The company's testing laboratory has obtained the NVLAP accreditation of the U.S. Department of Commerce and the motor efficiency has secured the CC002A certification of the U.S. Department of Energy, making TECO the first company outside the U.S. to pass the certification. IE3 IEC series has successfully penetrated the Japanese market, meeting the fussy demand for quality and service by major Japanese clients. IE3 JIS series has also hit the Japanese market, ahead of major Japanese firms, and the company is actively seeking ODM (original design manufacturer) orders for the series. The new IE4 NEMA induction motor series embraces cast-aluminum rotor and process technology (instead of rare-earth permanent magnetic material). 1-100HP has successfully entered mass production. IE4 model was acknowledged by the 2011 Taiwan Excellence Award.



About inverter, the inverter used in industrial automation and home appliances, can reduce manpower and improve the efficiency. TECO in 2010 launched the “constant pressure pump inverter”, using the PI controller to control the pump so that pump speed can be started with stepless variable frequency. The noises by traditional frequent starts can be totally avoided. In addition, constant pressure pump is designed for specific parameters, such as water testing, leak detection, sleep control and other functions to be friendlier to the operators. For certain places which require higher water quality standard, such as high-tech industry, factories, motels, SPA sauna and government school authorities, the above-mentioned pump series are also able to parallel connect several pumps to adjust the water supply volume with operating pump numbers to extend the lifetime of the whole system while ensure zero problem of water supplying. In proper use, compared with traditional water supply system, the energy savings is up to about 30% to 50%.

About the home appliances energy saving aspect, the application combining inverter-controlled technique and the Vacuum Insulation Panel (VIP) that effectively blocks heat conduction in TECO-developed refrigerators results in inside temperature maintained at fixed cool with kf rate 0.002 and energy saving rate up to 145% above. This not only achieves the energy saving effect but also perfectly preserves the tastes inside the food ingredients. In water conservation aspect, automatic inverter-type energy-saving washing machines that utilize inverter-controlled technique have been developed. In addition, the technique of reducing clean water used during the washing cycle is employed to achieve high-efficiency washing and up to 25% (compared with conventional washing machines) effective water saving. TECO's new TVs not only comply with R.O.C (Taiwan) CNS14336 or CNS14408 standards, but also comply with EU (RoHS) and Japan (Follow) regulations. The product quality and energy efficiency are TECO's highest priority issues. For instance, the latest 32-inch models, can reach the maximum power rate of 47.2%. Currently, there are 33 air-conditions, six refrigerators, 13 washing machines, 11 liquid crystal displays and 5 energy-saving dehumidifiers has obtained government certification of energy labels, and 15 washing machines certified with water-conservation marks.

In consideration of home appliances and the environment, TECO incorporates the thinking of corporate social responsibility and environmental sustainability in every link to product design, manufacture, packaging and delivery. TECO rethinks about the harmony among consumer, society and Mother Nature. TECO dedicate itself to minimizing the impact to environment and carbon emission. Also since 2011, Taiwan government implement the energy efficiency classification system of air conditioners and refrigerators, the new refrigerant in air conditions and refrigerator energy consumption on all new TECO products



can meet the government regulations. Even certain air-condition models can go beyond the national standard of 2016, while the new development on 1-level refrigerator is under processing. All these efforts can show the importance for the development of energy-saving products in TECO.

3.2.3 Product Impact and Message Communication

About the product liability, from product designing, manufacturing, quality control, marketing, servicing and waste recycling, each stage has its responsible unit. Standardized operation procedures are practiced to ensure the consumers can purchase the safest and hazardous substance-free products. It is also the fundamental policy of TECO.

As for product related messages, marking on packages is provided for identifying the safety of the designed products. In addition, there are operation instructions, maintenance manuals and demonstrative presentations to offer information and measures of safe usage. Proper operative teaching is provided, methods of use are explained and consequences of improper use are reminded to consumers. TECO takes initiative in providing contact numbers and other approaches to contact with TECO.

TECO sets out company standards for banned and restricted substances in response to international environmental requirements. Any material used in products, components (accessory), packing and transport materials and consumption materials used in processes should comply with the laws and regulations and meet customer's environmental requests on the product.

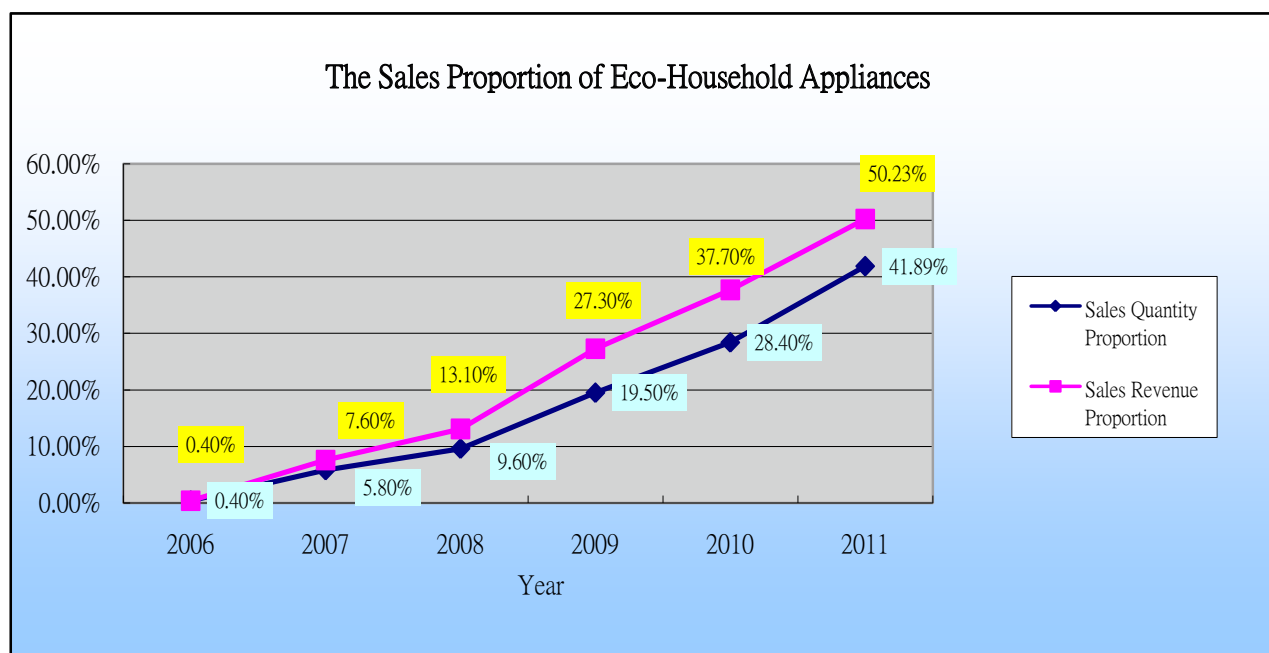
3.2.4 Results and Future Goal

TECO has accumulated 50 years of experience in motor production. The sales of high-efficiency motors have been increased significantly in recent years because of stronger capacity in R&D. TECO developed high-efficiency motors which complied with local energy efficiency standards, such as Taiwan-CNS, North America-NEMA, Australia-MEPS, EU-IEC and China-GB. December 2010, North American has implemented NEMA Premium standard; June 2011, EU would also carry out IE2 and IE3 efficiency standards. It shows that TECO's future market potential in high-efficiency motors because of the rapid growth of new international high efficiency regulations.



TECO's inverters have passed UL and CE marking to assure their quality. Besides quality assurance, TECO introduced lead-free production of inverters to comply with RoHS Directives. The product does not contain hazardous substances. Due to the global tendency of energy saving, it is foreseeable that the market potential of inverter related products will be rising sharply. The appliances of inverter in TECO will also extend to livelihood products from original industrial products.

The sales from 2006 to 2010 of Eco-Household Appliances (based on Air-conditions) which have obtain eco-labels, energy-efficiency levels (energy/water saving) is shown as following figure. It is obvious the sales volume and profit had been increased yearly. Especially in 2009, TECO followed the government's subsidies policy on eco-products, TECO promoted more products to consumers. It not only have shown TECO's determination on promoting eco-products, but also demonstrated that the eco-products acceptance to the public has been increasing.



3.3 Environmental, Safety and Health

3.3.1 Policy and Organization

An environmental, safety and health (ESH) team is set up under the President office, and responsible for the implementation of the company's environmental, safety and health policies. The ESH policies at present are as follows:

1. Comply with domestic and international laws and regulations and meet the expectation of stakeholders.
2. Idealize the ESH management system and realize environmental protection and pollution prevention.
3. Reinforce risk assessment and training, and carry out ESH auditing to maintain the safe, healthy and tidy working environment and to enhance the industrial safety and environmental performance.
4. Be dedicated to energy saving, eco-efficiency and cleaner production.
5. Promote green products and motivate research and innovation to achieve win-win situation between economic growth and environmental protection.
6. Engage all the employees and subcontractors involvement in ESH activities, and enhance communication and coordination, fulfilling the corporate citizenship.

3.3.2 Management System

3.3.2.1 Establishment of management system and procedures

- Implementation and verification of environmental management system: currently all the three production bases in Taiwan, Chungli, Guanyin and Hukou, have received the ISO 14000 certification.
- Implementation of greenhouse gas inventories system: the greenhouse gas inventories of TECO Electric & Machinery at Chungli, Guanyin and Hukou plants were conducted in 2007 with the support by Taiwan Business Council for Sustainable Development (BCSD Taiwan). The inventory system has been integrated into the routine environmental management program each year. The emission data have been collected from 2005 to date. From 2010, the GHG emission data shall be established in national platform of EPA. TECO also plans to apply GHG Emission verification (ISO 14064-1) on the 4th quarter in 2011.
- OHSAS 18001 and Taiwan Occupational Safety and Health Management System (TOSHMS): in pursue of higher occupational safety and health standards, the Chungli, Guanyin and Hukou plants in Taiwan received counsel for establishing the TOSHMS in 2008 and have been passed the certification. We also applies the performance recognition from Council of Labor Affairs, Guanyin plants even received the highest honor of 10 year recognition.
- Center-satellite system: in order to decrease the production waste, TECO also strongly champions the establishment and operation of center-satellite system to let the downstream suppliers work with us in reducing the waste, which also mitigates the impact to environment.



3.3.2.2 Promote green office

While TECO reduces the environmental impact, TECO also promotes relevant environmental measures in the office area, which include:

- practicing e-document, including education system, announcement or environment and safety information.
- Cancelling paper dish tray, using reusable utensils at restaurant
- conducting water and electricity conservation measures in office area, re-using production waste water.

3.3.3 Performance and Results

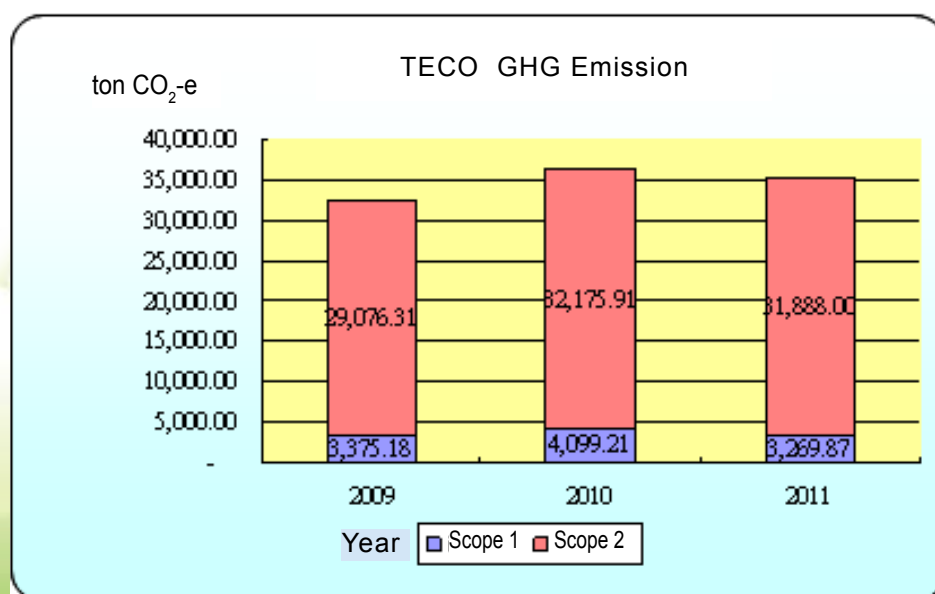
3.3.3.1 Energy and Climate

About the management related to energy and climate, TECO accepted the help from Taiwan BCSD in 2007 to conduct ISO 14064-1 GHG inventory in 3 major plants. TECO also promotes energy saving activities from 2007, the result has been getting better by the carbon reduction. TECO selected the GHG factors: before 2007 was EPA GHG Emission Factor V5.0; after 2008 would base on EPA GHG Emission Factor V6.0. The GHG emission data of 2010 is shown as follows:

Total GHG Emission from 2009 to 2011 was 32,451CO₂-e tons, 36,275 CO₂-e tons and 35,167 CO₂-e tons. In 2012, output value of TECO's three factories will rack up slight growth over 2011 but the CO₂ emission will drop modestly, thanks to the continuous implementation of energy-conservation measures in the past several years.

Direct emission from 2009 to 2011 was 3,375 CO₂-e tons, 4,099 CO₂-e tons and 3,269CO₂-e tons. This figures shows that the obvious carbon reduction by production improvement since 2007. TECO used recycle steel material and change the fuel into LNG.

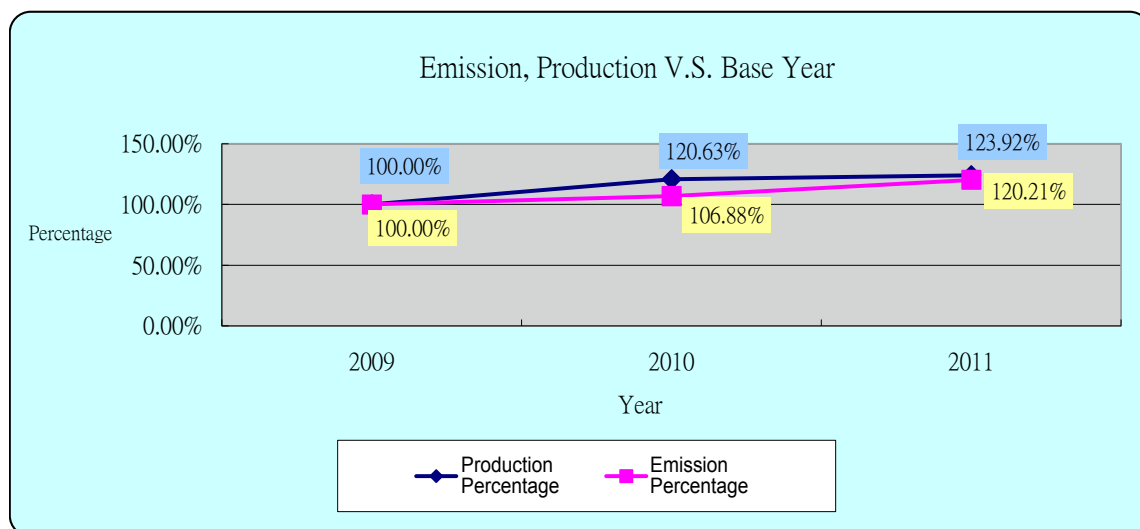
The indirect emission was from electricity power, from 2009 to 2011 would be 29,076 CO₂-e tons, 32,175 CO₂-e tons and 31,888 CO₂-e tons.



Note: Quantitative method for measuring emission of greenhouse gases

(1) Power emission coefficient publicized by the Bureau of Energy, the Ministry of Economic Affairs, on Sept. 14, 2012.

(2) GWP value is based on the 1995 edition of IPCC.



TECO's major energy consumptions can be divided into five kinds:

1. Power: TECO has used 53,548,000kWh in 2009, 60,167,000kWh in 2010, and 59,511,000 kWh in 2011. Scope 2 indirect emission was 91% of the power use in 2011, and scope 1 direct emission was 9% of the total emission in 2011.
2. LPG: during 2009~2011, TECO consumed about 134, 194 and 150 ton, respectively, in Chungli and Guanyin plants. In 2008, the Chungli plant improved the process and replaced LPG with LNG to cut down cost, reduce GHG and pollutant emission and lessen the hazard to safety. The LNG consumption from 2009 to 2011 was 633 m³, 669 m³ and 692 m³.
3. Diesel: from 2009 to 2011, TECO consumed diesel 108kl, 127kl and 138kl respectively, in all three plants—Chungli, Guanyin and Hukou for diesel forklifts, hot water boilers and generators dormitory.
4. Gasoline: from 2009 to 2011, TECO consumed gasoline 5kl, 4kl and 9kl, respectively, in all three plants—Chungli, Guanyin and Hukou for corporate vehicles.
5. Heavy oil: from TECO consumed heavy oil 148kl, 192kl, and 172 kl, respectively, in Guanyin plant for Foaming process used in refrigerators, air-conditioning sheet metal parts coating and washed steam boiler.

To enhance energy efficiency and to realize the aim of reducing GHG emission, TECO conducted energy conservation projects in the plants in 2011, as shown in the table below. These projects resulted in 344 tons of reduction.

Items for improvement of energy conservation	kWh/year	kg/year(CO ₂ -e)
improvement of control for oil hydraulic press and hydraulic pump in the production process at Chungli first plant	23,760	12,735
switch of die casting machine to PM motor in the production at Chungli first plant	19,008	10,188
addition of variable-frequency drive to packaged air conditioners of Chungli first plant	29,970	16,064
replacement of 500W mercury lamp with 110W power-saving lamp at Chungli first plant	247,104	132,448
replacement of common motors with high-efficiency motors at Chungli first plant	70,043	37,543
installation of heat-insulation net on the warehouse roof of Chungli second plant (lower rooftop temperature in summer and save power consumption of air conditioners)	164,986	88,432
Installation of new skylight for the roof of Chungli second plant to lower the utilization of lighting	29,938	16,047
replacement of T8 lamp with T5 lamp at Chungli first plant	27,878	14,943
replacement of fluorescent light with LED light at Chungli second plant	15,100	8,094
replacement of 100 T8 lamps with T5 lamps at Hukou plant	12,144	6,509
replacement of 50 10W emergency-exit lamps with 2WLED lamps at Hukou plant	3504	1,878
Total	643,435	344,881



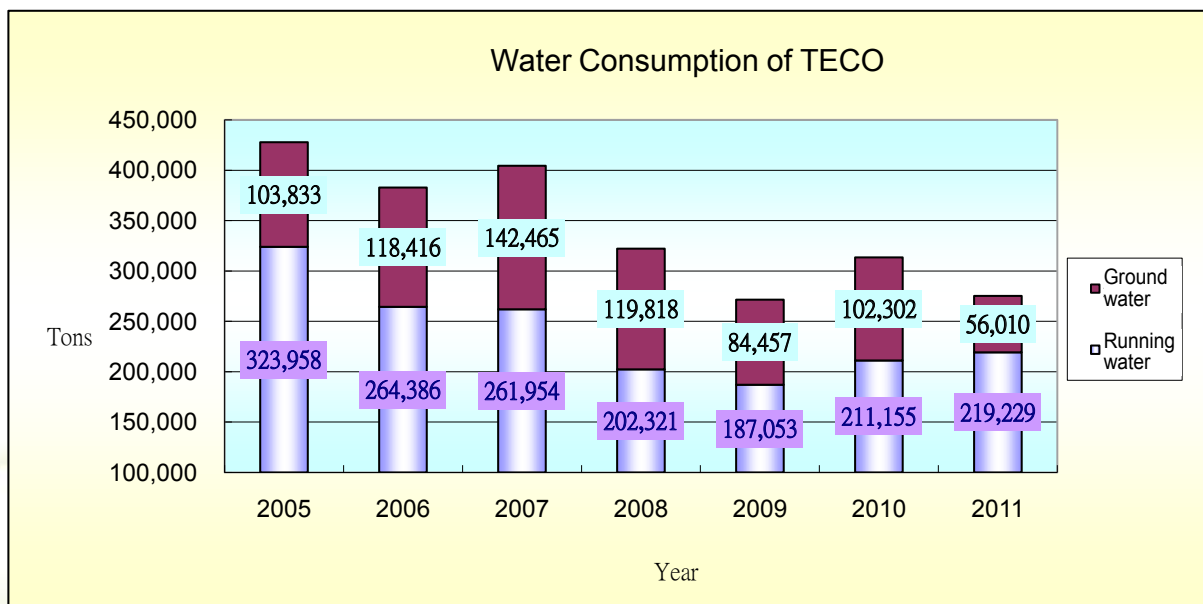
3.3.3.2 Resources Usage

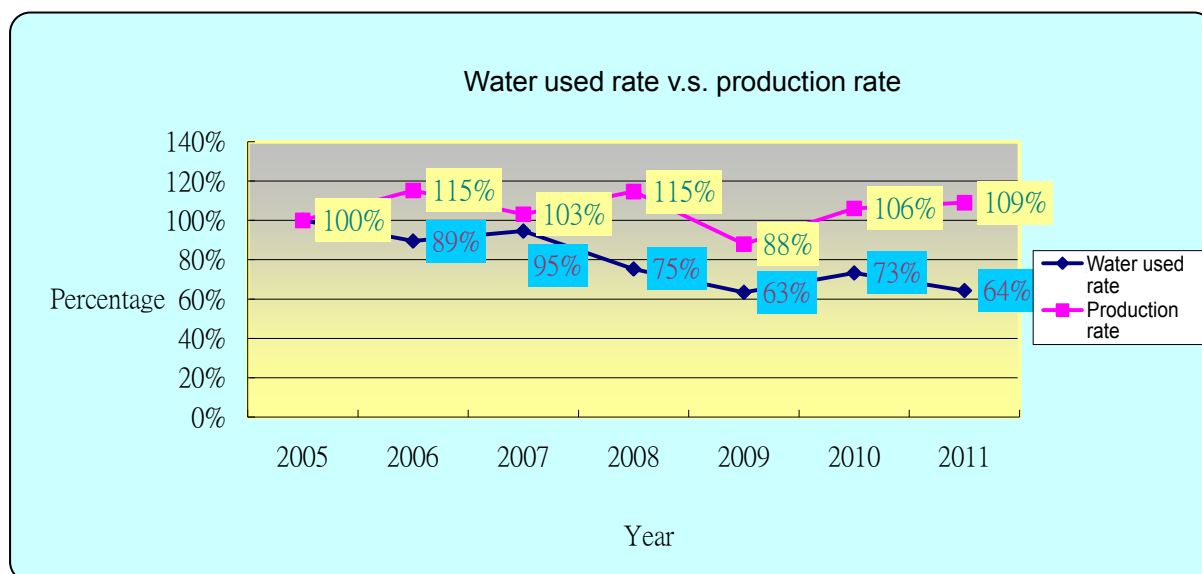
Chungli plant, where the Industrial Motors & Application Division operates with main produces of motors of various sizes, which use metal materials (ferrous alloy, magnetic sheet, round steel, pig iron, etc.), nonmetal materials (coke, enameled wire, etc.) and others (wood, plastic bag, cardboard box, etc.).

Guanyin plant, where Home Appliances Division operates, mainly produces home appliance products. The raw materials used in Guanyin plant are mostly metal materials (including sheet steel, copper pipe and aluminum plate), nonmetal materials (electro-coating paints) and others (cardboard box, Styrofoam, plastic bag, wood, etc.). The metal material and nonmetal material is about 98% to 2% in Guanyin plant.

Hukou plant, where the Industrial Products & System Automation runs, produces chiefly distribution panel and inverter using mostly materials of mechanical parts, wires, insulating wires and so forth.

Water consumption relies mainly on tap water and ground water. In 2009-2011, the company's three factory compounds consumed 271,510 tons, 313,457 tons, and 276,258 tons of water, respectively, with the share of tap water reaching 70-80%. Thanks to legal right for the use of ground water, the Guanyin factory compound relies on ground water entirely. Water consumption is related to the status of the economy. The company started to push energy conservation in 2006, covering power conservation and water conservation. The Guanyin factory compound recycles and reuses 6.1% of waste water.





As to the resources reuse, recycling rate of the wooden carton and butterfly cage which are used for motor manufacturing in Chungli plant has been 50% and 100%, respectively. The suppliers in Guanyin plant can 100% recycle and reuse the paper cartons of parts for the refrigerators and washing machines. In order to enhance the eco-efficiency, TECO considers of increasing the reusing rate of other reusable substances continuously.

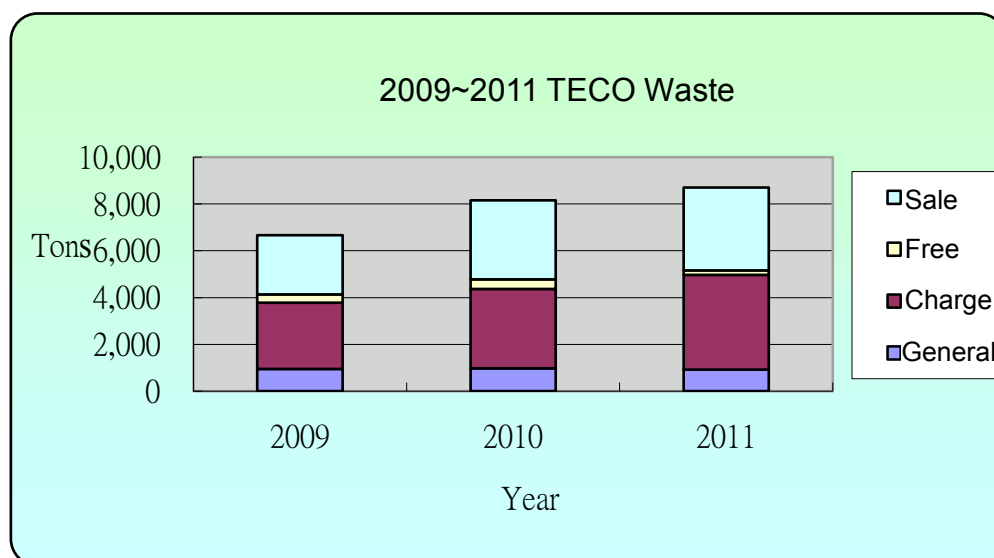
3.3.3.3 Waste treatment and pollutant management

The total amount of wastewater consumptions from 2009 to 2010 were 217,208 tons, 250,766 tons and 221,006 tons.

In order to implement waste reduction and resource recycling, TECO has set up "Waste storage and clean management procedure" in EMS. It is regulated that all the wastes from the plants need to be put in the same storage area, the cleaning process need to be traced and recorded. Relevant records shall be kept at least for 3 years. During 2009-2011, the total amounts of industrial waste at the three factory compounds of Chungli, Guanyin, and Hukou reached 6,667 tons, 8,153 tons, and 8,703 tons, respectively. The amount in 2011 is 6.7% higher than 2010, partly due to 5.3% growth in output value. The company will strive to convert industrial wastes into resources, to cut the amount of industrial wastes.

The resource waste can be sold as well, the ratio of sold resource waste in 2009 was 38%, 2010 and 2011 was 41%. The waste treatments are landfill, incinerating, reuse and foreign treatment. The major treatment TECO applied is reused (recycle or sell), the rest treatments are incinerating and landfill. The waste wires and cables are sent to Mainland China to carry out further treatment.

The Chungli plant improved its production process in 2008, recycling waste materials, including silicon steel pieces and silicon steel scraps, as raw materials for motor cases. As a result, from 2009 the amount of wastes has plunged 48% and the amount of iron purchase has also dropped considerably. TECO will continue to cut the amount of waste materials.



Waste treatment classification:

1. General waste: the mixture of waste paper, the mixture of waste wood, waste cloth, normal trash, flue dust, non-hazardous dust waste or mixture, waste paint, paint slag, D-1799 oil mixture, organic sludge.
2. Recycling and reuse in plant: silicon steel lamination, scarp casting sand, induction furnace slag, waste paper boxes.
3. Waste resources for sale: scrap wire and cable, B class silicon steel scrap, scrap iron skin (silicon steel packaging), iron scarp, copper scrap, plastic shaft, scrap bearings, die-cast aluminum slag, scrap equipment and machinery.

The air polluting sites are Chungli and Guanyin plants, with kinds of pollutants being chiefly particulate, sulfur oxides, nitrogen oxides and volatile organic compounds. During 2008-2010, main air pollutants were VOC, at 103.9 ton/3 year, particulate at 46.9 ton/3 year, sulfur oxides at 6.4 ton/ 3 year and nitrogen oxides at 10.2 ton/ 3 year.

Ozone depleting substances:

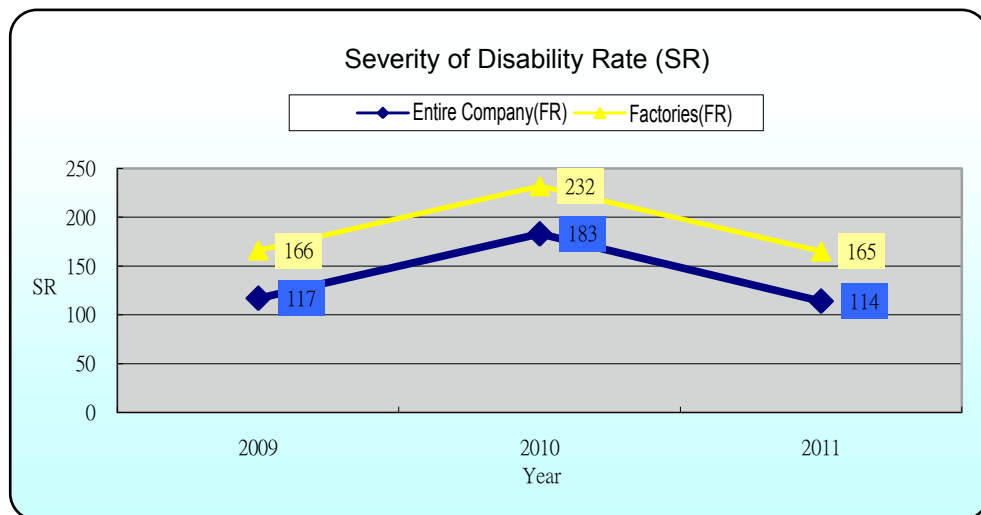
TECO's Home Appliances products are produced in Guanyin plant. The products are including air conditioner, refrigerator, washing machine, clothes dryer, dehumidifier and other small home appliances. Air conditioner and refrigerator need pumping in refrigerant during the producing process. Traditional refrigerant, Chlorofluorocarbons, is the ozone depleting substance. Currently, types of canned refrigerant are R22, R134a, R407C, R410A and R141b. The company replaced R22 coolant with R410A coolant for household air conditioners in 2011 and has also started to substitute R410A and other coolants, which are harmless to the ozone layer, for R22 coolant for commercial air conditioners. The company began to embrace cyclopentane for the sponge-making process in the production of refrigerators, replacing R141b, at the end of 2006. R134a coolant for refrigerators will also be replaced by R600a from 2012, which is harmless of ozone layer and doesn't produce greenhouse gases.

2009~2011 Annual Refrigerant Using

Fugitive Emission	Item	Content	Year	Amount(kg)
	R410A	Refrigerant for Production	2009	24,502
			2010	21,574
			2011	83,795
	R407C	Refrigerant for Production	2009	2,923
			2010	3,162
			2011	1,566
	R22	Refrigerant for Production	2009	170,435
			2010	34,340
			2011	50,290
	R134a	Refrigerant for Production	2009	22,020
			2010	22,600
			2011	14,000

3.3.3.4 Safety and Health

TECO has established an occupational safety and health management system and has been certified with OHSAS18001 and TOSHMS of Council of Labor Affairs. TECO had no lethal accidents or occupational diseases during 2005-2011. Excluding transportation accidents outside the factory compound, the company had three vocational-injury cases in 2011, with the Frequency of Disability Rate(FR) reaching 0.55 for the entire company and 0.80 for the factories. The Severity of Disability Rate (SR) reached 114 for the entire company and 165 for the factories. The company has been striving to reduce the occurrence of vocational accidents. From 2010, the company has incorporated vocational management into the key performance indicators (KPI) of various units, in order to intensify the security awareness of unit chiefs and the entire staff, thereby removing potential insecurity. In addition, the company has also been pushing the system for proposed improvement and has included the amount of proposals put forth by various units into the KPI items for management, in the hope of achieving zero accidents, so that staffers can return to their homes from workplace safely every day.






省水省電省能源
愛鄉愛土愛家園

電控廠製二課 周素玲

定期保養優於損壞修理
事先防範勝於緊急處理

研發中心設計課 鍾明莉

 <h2 style="text-align: center;">職 災 案 例 四</h2>	
發生地點：	中經二廠裝二課裝二課 磨子平衡機
發生時間：	2010年2月11日上午的8點20分
發生類型：	設備故障
發生情形： <ol style="list-style-type: none"> 1.二位員工受傷，手腳、腳部二處被燒傷(20%-30%)。 2.更傷及左腿骨。 3.腳部被磨擦燃燒脫粉碎性骨折，一腳被磨擦脫粉碎性二掌骨裂傷也骨折。 4.先6月底再上還在休養中。 	
發生發生經過： <p>磨子平衡機開始作業前除員工(二廠裝二課)兩位在平衡機後例以給水擦機手平衡機，係員工(二廠裝二課)在平衡機前部以瓦斯射流機加熱而達目的，瓦斯水擦機發生高熱引起火災，造成磨擦及摩擦二小零件及腳部受傷及設備受損。</p>	
發生防止措施： <ol style="list-style-type: none"> 1.當天下午12:00製一課、製二課裝配組及修護組之瓦斯射流機停止使用，全部集中並停止使用。 2.500噸磨擦機之快凍機(20年2月18日後停止使用。 3.以電氣禁止給瓦斯射流機，實施保養及有專人看管。 4.全部禁止給油機，停止使用，所有有磨擦燃燒機機及地庫。 5.製所有磨擦機使用量，視機使用量以存放一箱為原則。 6.視機所有有磨擦機使用場所防火及至少應保持8公尺。 7.平衡機之設備由專人監督管理。 8.各位於12:00分之二和召喚所有員工至安全會議事項。 	
發生原因圖： <div style="display: flex; justify-content: space-around;">   </div>	

3.3.3.5 Health Promotion Plan

The concept of healthy workplace is rising, TECO always attaches importance to the health of colleagues, as the result, TECO has begun to promote the concept of healthy workplace years ago. TECO actively cooperated with the government for “smoke-free workplace” and counseling “National Healthy Workplace Self-certification.” Following the Chungli and Guanyin plants were certified as healthy workplace. In 2010 TECO headquarter and Hukou plant were also certified. The winning does not only show the public recognition of TECO’s efforts on promoting healthy workplace, but also represent the implementation of TECO’s declaration on staff health caring.

The health promotion activities have been implemented by clinics and SE members in each plant that made TECO be awarded and passed several governmental evaluations. For instance, Chungli plant received Taoyuan County Government awards in smoke-free workplace, health start and health promotion in 2009. Guanyin plant also gained 3 awards in smoke-free workplace, health start and health promotion from Taoyuan County Government in 2009 and 2010. The headquarter have been planned to promote the health of diverse and creative workplace including the implementation of smoke-free workplace policy, provides a wealth of community activities, environmental safety and health education information etc. the result is significant. TECO stands out among the evaluation involved 138 companies and won the award of the Taipei City Government Excellence Award on Healthy Workplace. Having encouraged by the Hsinchu County Government, Hukou plant applied “Healthy Workplace Self- certification” and “Excellence Award on Healthy Workplace.” Hukou plant also rewarded in the campaign which 1,969 companies had attended in.

Under the instruction of the company nursing unit, a series of the healthy promotion activities have been carried out in 3 plants. Those activities through four aspects: diet, exercise, psychological health, and daily behavior to draw staff attention on their own health, and to help staff have more clear information of their own health as their reference in medical or fitness plans. Therefore, TECO cooperates with local District Health Centers to provide health accelerating activities, such as, oral cancer screening, colorectal cancer screening and health talks, hiking, weight loss competition, the five elements exercise, healthy diet, etc. TECO not only enhances the corporate image, but also to achieves win-win-win situation on employees, employers and government, thereby enhancing industrial competitiveness.

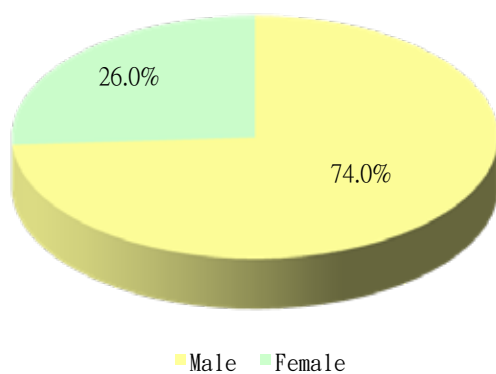


4.1 Employee Structure and Employment

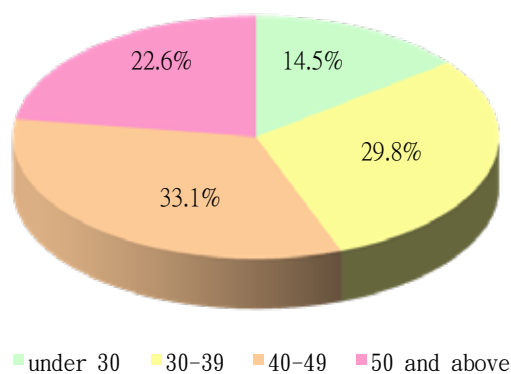
Employees are the most important asset of a company and the key for the sustainable operation. The recruitment and training of talents matter for TECO. Adhering to the principle of fairness, rightfulness and good faith, TECO follows up government laws and regulations in the recruitment, selection and engagement of any employee. No discrimination is practiced based on race, class, language, ideology, religion, political party, native, birth place, gender, sexual inclination, age, marriage, appearance, five senses, disability or past union membership. TECO recruits employee according to the job description with the specialties and conditions required.

By the end of 2011, TECO has 2,726 employees, with background as follows:

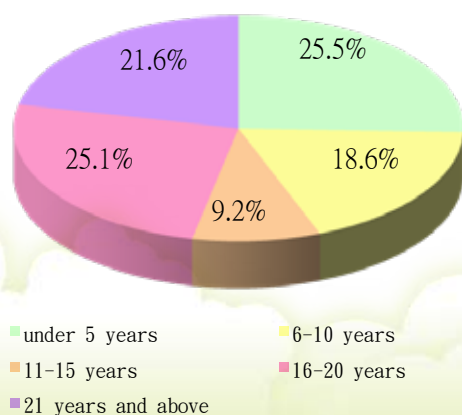
Employees' Gender Proportion



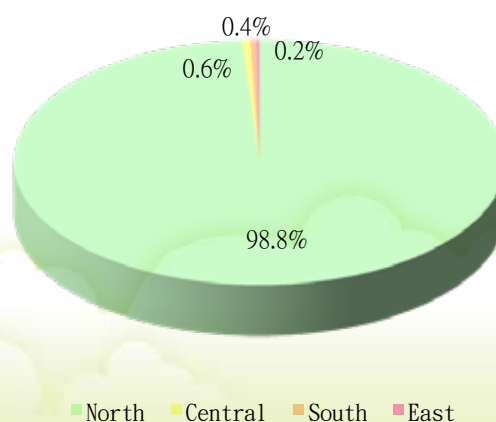
Employees' Age Proportion



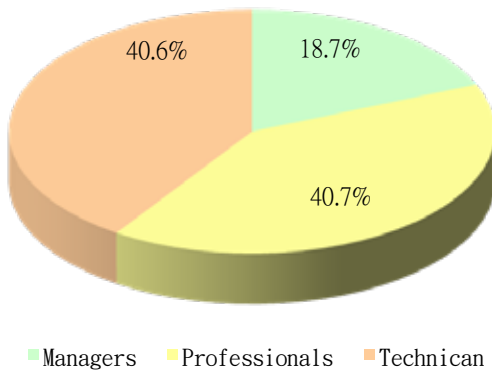
Employees' Working Seniority Proportion



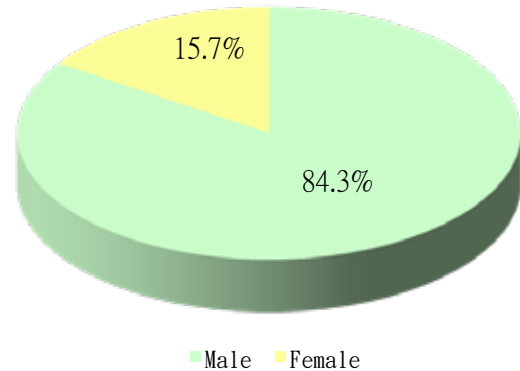
Employees' Working Area Proportion



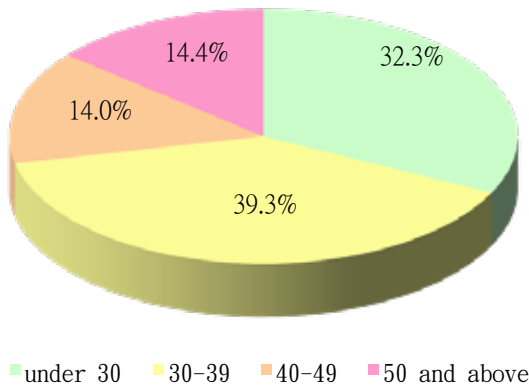
Employees' Job Proportion



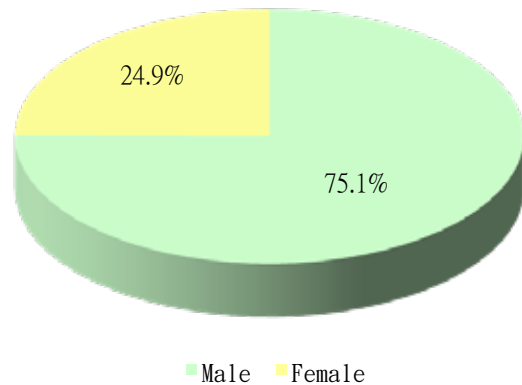
Managers' Gender Proportion



Departing Employees' Age Proportion



Departing Employees' Gender Proportion



Following the Labor Standards Act, TECO does not hire any employee under 15 years old. For apprenticeship students who under 16 years old, TECO provides them thorough life-caring and workplace cultivation. In order to guarantee the working opportunity of local labors, the company only hire Taiwan local labors to conduct manufacturing jobs. TECO also offers suitable positions for handicapped people. There are 35 mental/physical disable people working in TECO at present.

4.2 Employee Communication

TECO has applied multiple mechanisms to build up the communication channels with employees, including TECO's quarterly employee assemblies, and morning assemblies in each plant. In those occasions, the senior manager can talk face to face to the employees and indicate the current operation performance with challenges. It is also a good chance to praise particular colleagues' working achievement or performance in this assembly occasion.

In addition, to pursue the enhancement of working efficiency and improvement of working conditions, and to facilitate the closer coordination of point of views between employers and employees, in July 1974, TECO established TECO Electric & machinery Industrial Unions. From March 1970, the employee/employer meetings have been set up by each plant. About the employees' rights or welfare issues, under the full communication between employees and employers, the final decision could be made and shall be reported to the governmental labor authority. In order to protect the rights of both employers and employees and maintain the harmonious teamwork relationship, TECO signed a team agreement on December 28th, 1981. The representatives who attend Safety and Health Committee shall be selected by the industrial union.

In 1999, the company received the Award of "Good Business for Employer-employee Relationship" and the "Demonstration Award for Employer-employee Meeting" from the Council of Labor Affairs. TECO also received the award of "Good Business Award for Employer-employee Relationship" from Taoyuan County Government. These awards are

considerable recognitions of facilitating the relationship of coexistence and co-thriving between the two parties.



TECO Quarterly Meeting

4.3 Training and Development

TECO has a complete and comprehensive staff training and development system, so the colleagues can have adequate learning resources to upgrade their abilities, and also get good career development opportunities when they work in TECO. Accordingly, the company won the Taiwan Training Quality System (TTQS) Silver Award in 2010; and in 2011, won the sixth annual HRD InnoPrize. This training system have been proved TECO development system has not only received public recognition but also become a model in this industry.

Training in TECO has been developed a complete system, TECO also invests 1/1000 of the annual turnover in staff training. For all-level-employees, TECO provides professional and managerial courses on a regular basis or arrange for external trainings. Through the various stages of career training programs, TECO cultivates excellent enthusiastic and innovative employees.

TECO training system can be divided into orientation training, senior manager orientation training, senior manager training, management staff training, professional practical training, training on general knowledge, external training, labor safety and health training, etc. Training methods are including internal training, external training, online training courses, on-job training, and self-development training, etc. Since 2007, TECO has established e-learning learning platform that enables the employees to obtain all the training or curriculum information without time limitation. By detailed recording of each colleague's individual development plan (IDP) and his/hers training process and learning outcomes, the platform can effectively manage the learning and development situation of each colleague. In 2011, total of 15,352 man-time participated in TECO's training courses, training hours per person on average is 21.79 hours.



The Learning Blueprint of Each Level

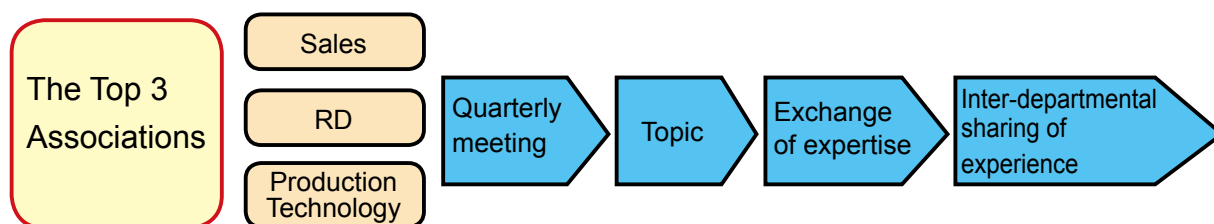
Learning Period	5 years and above			5 years			3 years			Learning Stage										
	13	12	11	10	9	8	7	6	5		4	3								
Personal Learning												Self Development	Outside Training	Outside Training	Management Staff Training	Core Training	OJT	Stage	Working Level	
	Internationalized Staff Cultivation																			
TECO Learning Center																				
Job Title																				
OJT																				
Working Level																				



2011 Training Framework

In addition, several professional associations have been set up company-wide by TECO, such as bio-tech association, RD association or sales association. The main purposes of those associations are to increase the experiences exchanging of professional colleagues in similar field, and to encourage colleagues to learn and grow.

The Top 3 Associations in TECO



RD Association



Sales Association



Production Technology Association

In staff development, TECO has built up a complete career development path. The employees can follow his/her needs to choose the most suitable career approach in promotion, job rotation or assignment. During the semiannual performance appraisal, when supervisors interview the staff about performance, the IDP implementation result must be reviewed, as well as set up future learning plans to ensure that every colleague can find the best position in job with his/her specialties.



Won the 6th National HRD InnoPrize

4.4 Health and Safety

Physically and mentally healthy employees can create efficient and quality work performance. To take care of their health, physically and mentally, TECO provides medical room and clinic in every plant, which are staffed with full-time nurses and stationed by professional doctors on a regular basis. In order to maintain employee health, TECO creates and makes an effort to provide a good environment and to promote the health promotion activities throughout the year, such as labor safety and health training, annual health checks, pap smears, smoke-free workplace, weight loss activities, yoga activities, health gymnastics activities, spiritual growth programs to ease the pressure of course, health talks, blood donation, staff activities, hiking, ball games, fun competitions, etc., and colleagues in the regular health information to enhance knowledge of health care colleagues. In addition to assisting employees a full range of health management and health promotion and, more tentacles and then extended to the care home staff, hoping to improve morale, improve work quality.



□□□□□□□□□□□□□□□□

□□□□□□
□□□□□□□□

The workplace health promotion in TECO has been achieved a distinction performance, winning the Taipei City Government, Taoyuan County Government and the National Health Council awards in recognition of public. Hukou plant even had been recommended to be the factory representatives of Hsinchu County to participate in a national competition of best healthy workplace. From 1,969 business candidates, Hukou won the "Sociabbling Health Award," with the high degree of recognition.



□□□□□□□□□□□□



Won Significant Prizes/
Awards from Central
and Local Governments

4.5 Rights and Welfare

TECO provides every employee with multiple insurances, including laborer insurance, health insurance and free group insurance that cover life, medical, cancer and accident insurances. Additionally, a worker's spouse and his/her children are entitled to life, medical, accident and medical group insurances. The workers' parents are entitled to accident injury and medical insurances. These measures ensure TECO's co-workers can work free of worries and feed back the company and the society with their best performances. As to the retirement scheme, it is practiced according to the Labor Standards Act and related regulations.

In addition to business leave and special leave, staffers can apply for suspension of jobs for military service, major injury and disease, and baby caring and resume their positions later on, so that staffers can care for their families and works simultaneously. In 2011, 10 staffers took parental leave (including seven females and three males) and three staffers (one female and two males) quitted their jobs later on.

TECO's pays are at the medium level in the market and starting pays for new staffers are higher than the basic pay set by the government. The company adjusts pays of staffers according to their performance and contribution, which is also the basis for the issuance of variable bonus, dividend sharing, and other compensations, so that staffers can share the profits of the company. Compensations for managerial staffers are adjusted quarterly according to the performance of their units. The issuance of various compensations is meant to reward the painstaking effort of staffers and their faithfulness to their duties, which is essential for the company to achieve its business goal.

TECO has established the Employee welfare committee since 1964, which carries out various welfare measures entitling the employees to the corporate profits. Welfares this company provides are as follows:

- 1.Board: canteens serve lunch to employees.
- 2.Apparel: new recruits are given winter and summer uniform and winter jacket.
- 3.Dwelling: dormitories are disposed in every plant to provide dwelling to co-workers from out of town.
- 4.Transport: commuter buses are provided in each plant to take the co-workers to and from work.
- 5.Education and recreation: the Welfare committee sets up clubs, such as hiking club, fishing club, Dong-Hui Association and swimming club, each of which sponsors activities on regular basis. The Welfare committee also holds corporate activities each year, such as TECO family day and vacation trip, to enhance centripetal engagement of the co-workers.
- 6.Other subsidies: The Welfare committee provides subsidies, such as scholarships for students, funeral subsidy and hospitalization subsidy.



Because the employees are fully cared, the turnover rate of employees is far below the industry standards, the staff turnover rate was only 6.6% in these 2 years. It shows that TECO's colleagues are proud of TECO, are willing to grow and work hard with the company.



Activities of Employee Clubs



Bowling Contest



Year-end Party

5.1 Health and Safety Impact during Product Life Cycle

TECO has been responsible for product liability in every stage from product design, manufacture, quality control, marketing, service for disposal and recycle. Manufacturing and selling the safest products which are free of hazardous substances is the company's basic policy.

TECO regards the evaluation of product safety design very seriously. It also ensures the product promotional documents all have complete safety identification.

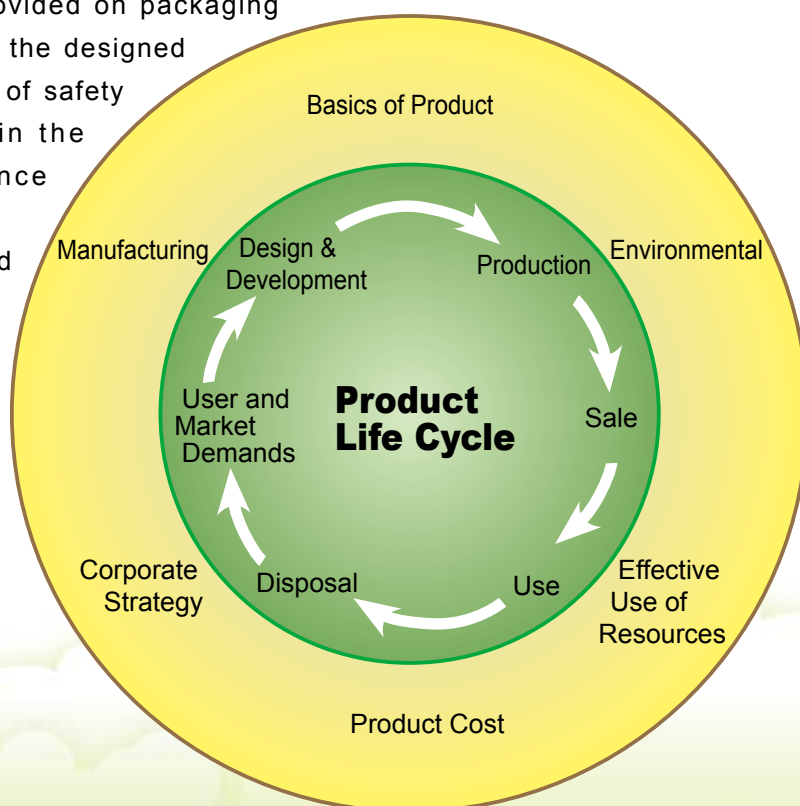
Necessary control measures are taken in stages during the production process.

The technique of safety designing is employed right from the design stage to analyze the potential factors of product safety. Based on the analysis results, the precaution measures are taken to assure product safety. TECO has also integrated energy conservation and carbon reduction into the product design.

Rigorous control and safety test of components are conducted during the stage of manufacturing. The hazardous substance-free products produced are inspected scrupulously for assurance. Product manufacturing and use of material are dominated by the principle of minimized pollution, recyclability, resource conservation and low toxicity.

In product marketing, marks are provided on packaging material for identifying the safety of the designed products. Information and measures of safety for product usage are provided in the operational safety and maintenance manuals.

Product disposal and recycling should be compliant with WEEE related regulations.

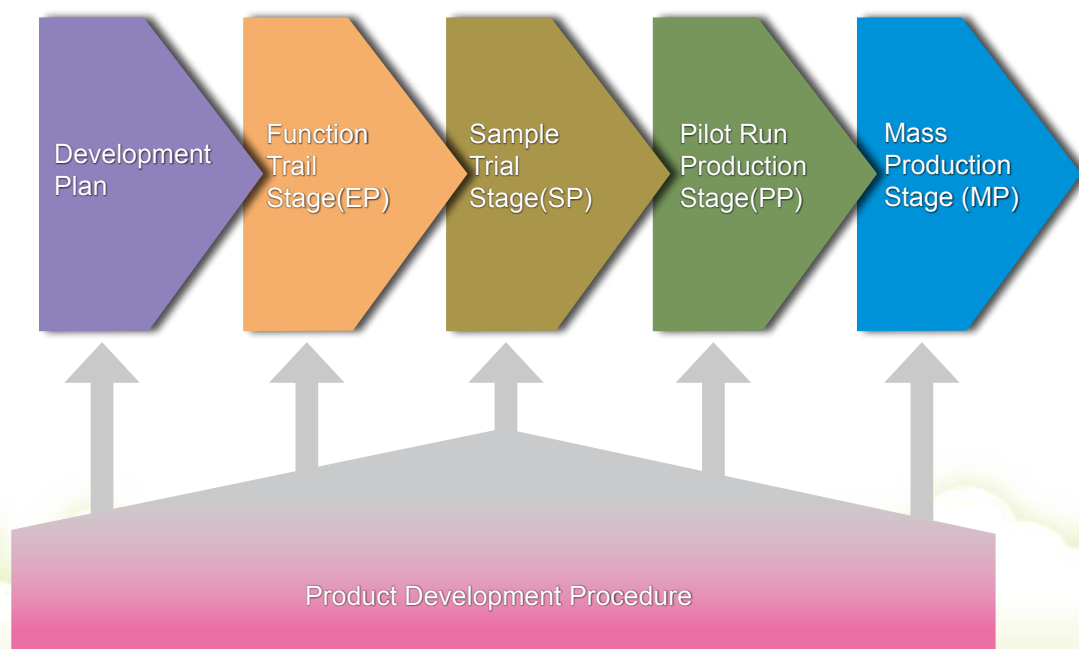


5.2 Product Information

In response to the requirements of international environmental regulations, a plan for phasing out the restricted and banned substances was made by TECO. Materials, components (accessories), packaging and transport materials used for products and the consumption materials used in the process should all meet the legal requirements and satisfy customer's requirements for environmental friendly products.

To comply with international environmental protection related regulations, and base on QC 080000 standard, TECO established restricted substances management procedures (102E-II-R-CB-085) with "Non-hazardous Substances Management Organization" which leded by President. The organization members are including key managers of each plants, such as directors, RD Directors and Purchase Directors. The main goal of this organization is to ensure the products are hazardous substances free (HSF), and comply with the Directives and requirements (WEEE, RoHS, EPA, EMS, REACH, EuP, etc.) and the HSF requirement of customers.

From the design stage, the material, parts, packaging or any other materials that TECO selected has to comply with HSF requirements. TECO has to ensure that the products have complied with relevant regulations and customers' requirements. Some products even have to comply with REACH Directive (Registration, Evaluation, Authorization and Restriction of Chemical) to control the SVHC (Substances of Very High Concern) in products.



5.3 Custom Satisfaction

Each business unit of TECO engages professional institutions to conduct customer satisfaction survey at least once in six months. Reviews and improvements are carried out at quality review meetings and business meetings in respect to the survey findings and customer complaints. The feedback opinions in customer satisfaction survey are taken as the key element of consideration in the stages of marketing planning, after-service and measurement, analysis as well as improvement in quality management system. By doing these, attempts are made to reduce design costs and time taken and to fix the design decision as early as possible during the cycle of product development. It is also possible to improve communication and converged strength within the product development and improvement team.

Such attitude of “making it more perfect” is recognized by the majority of the customers, allowing the company to maintain a considerably high percentage of satisfaction each year. In TECO’s TQM program, TECO engage the suppliers to upgrade their quality management system. TECO works together with suppliers in pursue of products with higher quality and without hazardous substances. TECO’s suppliers should comply with RoHS Directives. Suppliers that provide parts containing HSF are further evaluated for grading. A supplier auditing program is conducted regularly to assure and assist TECO’s suppliers to maintain the high but stable quality level.



5.4 Supply Chain Management

TECO's supply chain management handles the interactions with supplier, freighter, customer, retailer and those who deal with the used product disposal. An organization may affect the supply chain; accordingly, interactions between these up- and down-streams are subject to change. Effective communication throughout the supply chain would facilitate cooperation, minimize misunderstanding and enhance synergy of the actions taken within the supply chain. Other objectives of the supply chain management include:

In order to complete the goal of producing green products, TECO considers environmental relevant regulations in product development, design and producing stages. In addition, the company also takes the suppliers as one manufacture stage in the whole production line. It is one of TECO's TQM plans and objectives that TECO should work with suppliers to enhance the quality and management standards, to achieve the goal high quality and HSF products. TECO's suppliers should follow the regulations and make sure the parts that they provided comply RoHS Directive. The company evaluates certain HSF material suppliers with qualify levels. To maintain suppliers' stable quality, TECO not only check the suppliers by the requirements of quality/environmental protection/safety & health, but also regularly audit suppliers to ensure the product meet the green management and control.



TECO requires suppliers to provide basic information about themselves, and require them to pass the certifications such as ISO quality management system (ISO9001, ISO/TS 16949, ISO environment management system (ISO14001), occupational health and safety information system (OHSAS 18000, TOSHMS). During the audit process, TECO focus on suppliers' internal control effectiveness of project management, product design, material sourcing, business development, material inspection, transportation, after sale service and manufacturing processes.

TECO claims all the suppliers shall follow RoHS, REACH and any new environmental protection related Directives or regulations in suppliers' quality assurance agreement which signed by both sides of supplier and TECO.

Supply chain management: due to the globalization and out-sourcing trend, the supply chain management is getting more important nowadays. Supply chain management means the interaction and handling process among suppliers, distributors, customers, retailers and waste dealers. Base on the possibilities of affections from organization to the entire supply chain, the interaction between upstream and downstream can be changed. Effective communication can enhance cooperation, reduce misunderstandings and affect the action from organization to the supply chain. The related tasks to supply chain management are described as follows:

- 1.raise the environmental awareness of suppliers and customers;
- 2.specify and discuss environmental requirements for the supply chain managements;
- 3.improve suppliers' environmental performance;
- 4.set up programs related to the reuse and recycling of packaging material, raw materials, components/parts or the entire product;
- 5.engage the suppliers in the environmental programs

5.5 Quality Control System

TECO's vision for quality is "top quality talents who work for added values and top quality products that customers cannot complain".

The mission for TECO's quality control system is to satisfy customer's needs by continuous improvement on the quality of product and service. The culture of incessant perfection and innovation is the means for anticipating and overreaching customer expectation. We continue in improving to create competitive edges. TECO's international brand image is also strengthened by TECO's quality control measures.

In regard to product quality, TECO actively seeks to become a globalized enterprise with high technology and green products. TECO persists in sustainable operation, create competitive edges, uplift service quality, foster top quality talents and make most excellent products which are all ensured to meet legal and customer requirements throughout the product life cycle.



TECO's quality management system complies with the standards of the ISO9001. international quality management system. By means of continuous improvement on the quality, TECO's efforts have resulted in creating competitive edges and increasing customer satisfaction.

The internationalized TECO provides local service with international vision. TECO sets up corporate quality policy as "Best staff—working value add; Best product—zero complain" to cultivate best workers and create best products. The highest operation principle is "technique, quality & service." TECO follows the principle to operate the core business and develop diversified businesses. By continuous improving products and service quality, TECO satisfies customer's need. Through constant enhancement and creative culture, TECO goes beyond consumer's expectation. Uplifting corporate constitution can create competitive strength, and enhance the international brand image of TECO.

About the product quality, the company actively approaches to be a globalized, high-tech, and green producer business. Insisting on sustainable operation, and creating competitive strength, TECO improves service quality, cultivate excellent employees and creates best products. TECO assures all the products in the life cycle from design, procure, manufacture, sale, scrap to recycle stage can comply with related laws, regulations and customers' requirements.

In the meantime, the TECO's quality management system certified by ISO quality management system—ISO 9001:2008 standard. Continuous improvement and quality enhancement are the key factors to create TECO's competitive strength and increasing the consumers' satisfaction.



5.6 Service System

“Quality first, technology-based, service-oriented” is always the idealism that TECO insists. Only good product with service can reach the highest customer satisfaction. TECO’s service points scatter all over the world, including Europe, Asia, America, Oceanic and Africa. It is always easy to connect to TECO’s global design & research centers, production bases, marketing and service network, and strategic planning. TECO is providing high-quality and fast-delivery excellent products through TECO’s globally logistic service of production and sale.

TECO is dedicated to the provision of global service and steady operation of the core business in the supreme principle of “technique, quality, service” for operation.

The consistent 5S of business ideas about customer service are:

Smile— to give the merriest heart and the greatest enthusiasm for service to serve our customers.

Smart— to accurately comprehend customers’ demands, to offer the service they need.

Speed— to serve fast, satisfying customer demand in shortest time.

Skill— to provide professional technical service.

Safety— to make customer assured and worry-free with the firmest and most sincere attitude of service.



TECO’s service has been certified for both ISO and GSP systems, which result fully displays TECO’s ambition in service industry.

Independent research and development and possession of techniques are TECO’s unrelenting persistence. Providing products that cater for customer demands is TECO’s impulse to innovate. The market oriented product designing and planning are the means to reinforce the brand marketing, to refine the channel layout and to provide quality service and logistic support management. There have been and will still be highly matured consumer markets facing TECO. Based on its idea, TECO has always pumped massive resources into every step of its operation to best satisfy the consumers demand for service. Any of these steps can be product R&D, designing, production, manufacture or back-end sales and service, or even in the service industry like logistics and restaurant. As “Quality first, technique basic, service No. 1” has been the concept TECO firmly embraces, only with good products and services can it obtain customer satisfaction. Over time, “Reform to create and innovate to move forward” has steered TECO along the way taking challenges. Now it leads TECO toward a new future.



6 Society Caring

TECO Technology Foundation and Dong-hui club are the 2 channels of TECO's social caring. The purpose of Dong-hui club is to promote normal activities, foster a harmonious and warm situations, and promote healthy active life, to enhance colleagues exchange of feelings, develop love in need of caring places.



Half a century ago, the "motor" rotated out TECO's vitality. At the hardest era of Taiwan's economy, the motor also rotated out the hope of the society. At the 38th anniversary (1993), the Board of Directors and Supervisors initiated the idea to establish "TECO Technology Foundation" by setting up the goal of "cultivating technicians, promoting forward thinking and accelerating social progress." The TECO Technology Foundation has been set up for 18 years. TECO's original goal is "taken from the community, giving back to society" which support the Foundation to develop gradually through 4 stages, every 5 year is a stage.

First Stage:

The beginning of foundation, the foundation focused on the original purpose of setting, caring the R&D of domestic technology. Arranging "TECO Technology Award," TECO had been the leader of encouraging technology development and initiating new social development concepts 18 years ago.



Second Stage:

By adding “Humanities Award” and “Eco-tech Award,” the foundation supported the combination of technology and humanity. The original “TECO Technology Award” renamed as “TECO Award” because of new items had been set up. Because of the “creativity” and “tech-innovation” are critical, the foundation promoted more activities to encourage teachers and students. Even the indigenous people supporting program were also based on this stage.



Third Stage:

After 10 years development, the foundation accumulated experience, human resource with quality, and external resources to make the programs and affections more successfully. TECO Technology Creativity Competition had been held for 3 years, the competition topic “Green Tech” was also meaningful to pursue earth sustainable social responsibility and follow the tendency of industrial development under the resource lacking. The “Exclamation mark—Remote Tribe Sustainable Education Program” was also recognized and supported by government, NPOs, NGOs, enterprises and individuals under the management of professional manpower.

Fourth Stage:

In order to match the Taiwan society current status, the field setting of TECO Humanities Awards had been modified into “art and culture,” “new residents education,” “special education,” “environmental sustainability” and so on. Through the setting of the award, the foundation has tried to encourage the citizens or teacher to value the abovementioned aspects. To support the traditional art from indigenous tribes, the foundation allied with domestic foundations to assist and develop “tradition learning,” “education” and “humanities” learning programs. The foundation has been enhancing and extending the service scope to expend the social concept of “enriching science and humanities” with practice. TECO Technology Foundation has been established for 18 years. Now, the foundation is planning on it's 4th “the 5-year-stage,” and continues work on the 3 foundations of “creativities,” “education supporting,” and “humanities caring.”



6.1 TECO Award Set up the Model of Technology Humanities

The TECO Technology Award was set when the foundation was established. This award was to reward the individuals who contribute to Taiwan science and technology, and to stimulate scientific and technological research and innovation culture. From 1998, the Humanities Award was added. On the 18th Award ceremony, several awards were integrated into 4 major fields in Technology Awards and the prize was rising to NTD 1 million per item. Humanities Awards would base on the decision of selection committee to set up the field each year. Since technology and humanities were included in TECO Technology Awards, the foundation renamed the award as “TECO Award.” In the past 17 years, 84 excellent individuals has been rewarded and the total prize has been exceeded NTD 40 millions. The “TECO Award” is orientated as a “Lifetime Achievement Award” to reward young scientists. Since 2006, to reward scientific and technological creativity, the foundation set up a competition- -“TECO Technology Creativity Contest.” The contest theme was robot for the first 2 years. From 2008, in response to the plight of the global energy shortage and industry developing trends, the foundation set the theme as “Green Tech.” Since 2010, the best universities competitors of Mainland China have been invited to participate in this contest. The TECO Award has become a thorough interaction platform of technology and creativity for the young scientists from both sides of the Taiwan Strait. From 2011, the number of competitor teams has been increased multiply. The competitors exchanged experience and idea after the contest enthusiastically. As the result, this competition has become a popular program which affects young scientists deeply.



6.2 Accumulating Social Innovation Power

In view of “creativity” is one of the human quality indicators. Policy objectives, technology development, art creation, industrial management, and instructional design all need creativity to improve efficiency. Therefore, the “creative education” is considered as one national basis. In 2002, the Ministry of Education published “White Paper on Creativity Education,” “TECO” then set the promotion of the “creative education” as one of TECO’s missions. This action has opened a new page of TECO on promote creativity education



across the province. As the concept that initiated from Dr. Hong-lan in Central University that the brain is a busy net, the effective connection of the net is the key of our wisdom. Creativity is associated with the net connection. The more effective and active connection would be able to support more creativity. People can facilitate the connection by past experiences, learning or reading. Dr. Hong's concept has been the basis of promoting creativity education in Taiwan.

6.3 Cultivating Creative Teachers for Remote Counties

To upgrade then teachers' creativity education ability of domestic elementary and junior high schools, the foundation has hold 2 to 3 days "Creativity Teaching Experiencing Workshop" in 10 counties since 2005. The total counties which the foundation have been hold this workshop is 14, 63 workshops and 12,640 teachers has been benefited. To cultivated creativities needs to be trained since children stage. The teachers in elementary school have to know the methods and skills of teaching creativity. This is the key to make Taiwan to be a creative country. The teachers learn principles and practices in the workshop, even experience the close connection between brain and learning, this activity has been welcomed by those teachers. Since 2011, the foundation extended this workshop to isolated islands such as Penghu, Kinmen, Matsu, and remote counties such as Taitong, Pingtung and Hualien. To instruct the teachers about the teaching skills of science, mathematics, and art appreciation is another target besides creativity teaching. The vision of this workshop is to reduce the education distance between urban and rural.

In addition, to cultivate youth creativity thinking and science intelligence, the foundation holds TECO Baby Science Camp and TECO Creative Youth Camp annually. This camp promotes creativity education by systematic and interesting easy-learning science courses. From 2000, the camp recruits 120 people per camp yearly. Because of the low price, high security, excellent quality factors, the camp is so popular that the on-line registration has been fully booked within 10 minutes on the registry date April 1st every year. The camp is known as one of the most popular summer camps in Taiwan. Because of the urge demand of more vacancy, from 2011 the number of students extends to 200 people per camp. The camp base is Central Police University. The foundation even invites the students from CPU to serve as camp staff to create a better quality summer camp which possessed creative education programs features.

6.4 Sustainable Supporting to Indigenous Tribes—"Exclamation Mark"

According to the Council of Indigenous Peoples, Executive Yuan, there are 14 indigenous tribes, 500,000 people in Taiwan currently. About 32% of the indigenous people live in



mountain area, the poor transportation and information, weaker economy and education are the reasons for making the tradition culture/art/languages to fail to be handed down to the next generations, About 40~85% of the indigenous families in mountain area have family function problems. The education supporting seriously insufficient is common too. All these problems are the drivers of the necessity of setting a platform which is able to merge the tribes' educational needs with society resources to support the minority tribes' sustainable education.

The foundation bases on multiple education concepts and respects/treasures the indigenous traditional culture and art spirit. It integrated social resources from about 26 organizations—NPOs, social communities, 16 enterprises, hundreds individuals. By funding and providing education resources, the foundation adopts indigenous children teams for songs, dances, drums, percussion, wood carving, tap dancing, judo, sports, etc. Up to date, the foundation has provided long-term supports and services to 31 tribal units in 9 tribes and 2,500 children. In addition, the foundation holds several activities which facilitate urban and rural interaction with demonstrating learning performance annually. Those activities are including "Indigenous Children's Night" and "Life and Art Creativity Experiencing Activity." These activities are not only to help tribal children to develop self-confidence through the program, but also actively expend the learning perspective of the youth. "Indigenous Children's Night" is held at National Dr. Sun Yat-sen Memorial Hall in May each year, for more than 2,500 public present to appreciate the beauty of traditional indigenous culture and art. "Life and Art Creativity Experiencing Activity" is held at local County Culture Centers. Over 3,000 teenagers can join this activity to experience or learn more about art within the one-day event before Christmas yearly.

From 2010, the foundation has received the requests from National Palace Museum to plan and execute the "Art Learning and Appreciation in NPM Program." The foundation can acquire more than thousands opportunities for economically disadvantaged rural students to go to National Palace Museum to learn more about arts annually. Through this activity that let arts and Chinese heritage to enhance children's humanities quality; while promoting the National Palace Museum's art education into the rural students' life, to expand the thinking of appreciation of arts and humanities.

6.5 Remote County Learning Program

In remote tribal units, fish villages or economically disadvantaged rural areas, certain factors make the education in straitened circumstances. The factors are including "single parent," "lost parents", "dependant relative," "economically disadvantaged," "family functions insufficient," "low level of knowledge of the parents" and "high teacher turnover rate." Because of the humanities life and education development is one of the foundation's service target, the foundation holds "Life and Art Creativity Experiencing Activity" annually before Christmas since 2005. In the past 6 years, this activity has been held 15 times in



Hualien, Taitung, Pingtung, Nantou and Miaoli counties. The total participated children are about 13,022 people. It is such as popular activity that a lot of children are expecting it enthusiastically every year.

Gathering the forces from all directions—assure the principle of high quality and quantity
In 2010, this program started a new model which was different from past years that the program accumulating 7 NPOs--Institute of Cognitive Neuroscience of National Central University, Dafangguang Charter Foundation, Taiwan Family Care Association, Advantech Foundation, Kuangchuan Culture and Education Foundation, Yonghan Culture Foundation and Ritek Culture and Education foundation—to provide funds or activities with their specialties or resources. The First Lady, Chou Mei-ching, personally-oriented this activity and designed 30 questions to be answered with prizes. The interaction with the children was so enthusiastically and successfully, the children answer in a warm wave even shook the Pingtung County Cultural Center.

Gathering the forces from all directions—Insist on the multiple and rich Idealism
The exciting contents of each activities were including high-quality film appreciation, concerts, drama play creativity appreciation (children's drama, Chinese opera and Taiwan traditional custom activity—Bajiajiang and Guanjiangshou), Indigenous song and dance performances. Through a wonderful day learning experience, the foundation successfully improved young people's understanding of the meaning of life and reflection of life. With the move of art aesthetics, children have increased their creative imagination and emotional management wisdom. This activity is actively welcomed by cities and counties' education offices and schools that wish to participate in.



Gathering the forces from all directions—Accumulate the Forces which Affect Deeply
This activity has been held 3 times in 2010: Taitung—12/8; Pingtung—12/15 and Hualien—12/22. The total participants were 2,874 people. Each activity has required 20~30 shuttle buses to handle the transportation issue. Fortunately, the enormous work loading and expenditures (total cost over NTD 2 million) were helped by the Ministry of Education, Ministry of the Interior, National Science Council, and the County Education Departments, Cultural Office, and the full support of all partners. The feedback from those participated children and teachers have shown their drama inspiration, concert appreciation with obtaining the knowledge. The traditional indigenous songs and dance have created more self-confidence and ethnic recognition. These seemingly minor nutrients, but perhaps they can be the tremendous life force to “change” the life of a child. Should we let this force continued working?



2011 Activities of TECO Technology Foundation

Award and support for science/technology and humanistic causes

- TECO Award
- Club of TECO Award
- TECO doctorate farm
- Green Tech TECO sci-tech innovation competition

Creativity Education

- workshop for innovative teaching six sessions
- creativity education camp two camps
 - TECO children scientific camp
 - TECO innovative teenager growth camp
- life and artistic innovative events three sessions
- tribal schoolchildren scientific innovation experience plan 40 tribes
- innovative express-delivery electronic papers six issues



Sustainable education for aboriginals

- educational plan for tradition and education
 - support to folk song team, development of folk song education (11 teams)
 - support to folk dance team, development of folk dance education (11 teams)
 - support to traditional craftsmanship team, development of traditional craftsmanship education (two teams)
 - support to physical competition team, development of physical-talent training (two teams)
 - support to talent learning team, develop of potential gift education
 - program for teenager growth, promotion of scientific and artistic innovation program
 - program for teacher learning and growth
 - intensification of alliance and marketing operation: instant reporting, search link, openness to participation, international exchange, and learning
- Exhibition of achievements
 - Night of aboriginal children (Sun Yat-sen Memorial Hall)
 - Exhibition at municipal cultural centers (annual Christmas event)

Humanistic and artistic events

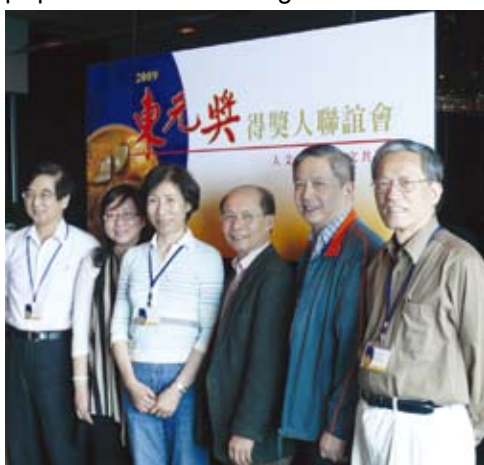
- art learning and enjoyment at National Palace Museum
- enjoyment of children drama

Enjoyment of movies





TECO Award was established in 1993, it covers technology and humanities fields. It has been held for 16 times, 80 people have been awarded. The Tech-Inno contest is set up for supporting young scientists to conduct research and innovation. It was the 4th year, the popular item including "Robots" and "Green Tech."





Teaching Creativities Workshop and Creative Education Camp



Establishing "Adoption" platform and holding "The Night of Indigenous Children" to perform the exquisite and commendable of Taiwan Indigenous culture and art



7. Appendix

7.1 GRI index

GRI indicators	Page
1. Strategy and Analysis	
1.1 CEO Statement	1
1.2 Key impacts, risks and opportunities	8
2. Organizational Profile	
2.1 Name of the reporting organization	2
2.2 Products and services	3
2.3 Operational structure	12
2.4 Headquarter location	2
2.5 Countries in operation	2
2.6 Legal ownership	2
2.7 Markets served	4
2.8 Scale of the organization	2
2.9 Significant organizational changes	12
2.10 Awards received	15
3. Report Parameters	
3.1 Reporting period	About the Report
3.2 Previous report date	About the Report
3.3 Reporting cycle	About the Report
3.4 Contact point for questions	About the Report
3.5 Content definition	About the Report
3.6 Boundary of the report	About the Report
3.7 Limitations on the report's scope	About the Report
3.8 JVs, subsidiaries, and outsourcing	About the Report
3.9 Data measurement techniques	About the Report
3.10 Effects of information re-statement	
3.11 Changes from previous reports	About the Report
3.12 GRI indicator index	58
3.13 External assurance policy and current practice method	
4. Governance, Commitments, and Engagement	
4.1 Governance structure	12
4.2 Indication Whether chairperson is also executive officer	13
4.3 Independent members at the board	13

GRI indicators	Page
4.4 Mechanisms for Shareholder/ employee participation	11
4.5 Executive remuneration and performance	13
4.6 Processes to avoid conflict of interest at the board	13
4.7 Process to determine board expertise on sustainability	
4.8 Mission, behavioral guidelines and principle for economic, environmental, and social performance	13
4.9 Procedures for board governance on management of sustainability performance	13
4.10 Processes for evaluation of the board's sustainability performance	13
4.11 Precautionary approach principle	13
4.12 External economic/environmental/social charters / principles or advocate	14
4.13 Association memberships	14
4.14 List of stakeholders	11
4.15 Stakeholder identification	11
4.16 Approaches to stakeholder engagement	11
4.17 Topics raised by stakeholders	11
Economic performance indicator	
EC1 Direct economic value	4
EC2 Financial implications and other risks and opportunities due to climate change	1
EC3 Benefit plan	40
EC4 Financial government assistance	
EC5 Entry level Wage vs. local wage bases	40
EC6 Local suppliers	45
EC7 Local recruitment	32
EC8 Infrastructure investment and services for public benefit	49
EC9 Indirect economic impacts	
Environmental performance indicator	
EN1 Volume of materials used	26
EN2 Recycled materials	27
EN3 Direct primary energy consumption	24
EN4 Indirect primary energy consumption	24
EN5 Energy conservation	25
EN6 Initiatives for energy-efficiency and renewable energy	18
EN7 Initiatives for reducing indirect energy	25
EN8 Water Withdrawal	26

GRI indicators	Page
EN9 Effect of Water Withdrawal	26
EN10 Water recycled rate	26
EN11 Land assets in sensitive areas	
EN12 Impacts of activities, products and services on eco-reserves	
EN13 Habitats protected or restored	
EN14 strategies for biodiversity	
EN15 Endangered species	
EN16 Greenhouse gas emissions	23.24
EN17 Other greenhouse gas emissions	23.24
EN18 Initiatives to reduce greenhouse gases	25
EN19 Ozone-depleting substance emissions	28
EN20 NOX, SOX and other air emissions	28
EN21 Wastewater discharge	27
EN22 Waste by disposal method	27.28
EN23 Significant spills	27.28
EN24 Hazardous Waste by Basel Convention definition	42
EN25 Biodiversity affected by discharge and runoff	
EN26 Environmental impact mitigation	
EN27 Recycled packaging materials	27
EN28 Non-compliance sanctions	23
EN29 Environmental impact of transport	
EN30 Environmental protection expenditure and investment	
Social performance indicator - labor practice and rational working	
LA1 Breakdown of Workforce	32
LA2 Employee turnover	33
LA3 Benefits to full-time employees	40
LA4 Employees with collective bargaining agreements	34
LA5 Minimum notice periods	34
LA6 Workforce in joint health committee	34
LA7 Occupational injuries, absenteeism and lethal incidents	29
LA8 Training on serious diseases	39
LA9 Trade union agreements on health	39
LA10 Training per employee	35
LA11 Programs for lifelong learning	36
LA12 Regular review in performance and career development	37

GRI indicators	Page
LA13 Composition of governance bodies; Composition of employees	32
LA14 Gender pay disparity	40
HR1 Human rights clauses in investment	
HR2 Supplier screening on human rights	
HR3 Training on human rights	35
HR4 Discrimination	32
HR5 Freedom of association	40
HR6 Child labor	33
HR7 Forced labor	33
HR8 Training for security personnel	35
HR9 Violations of rights of local employees	32
Society Performance Indicators – Society	
SO1 Impact on communities	35
SO2 Corruption risks	35
SO3 Anti-corruption training	
SO4 Actions against corruption	
SO5 Involvement in public policy making and lobbying	
SO6 Political donations	
SO7 Anti-competitive behavior	
SO8 Regulatory non-compliance sanctions	
Society Performance Indicators – Product liability	
PR1 Health and safety impacts along product life cycle	42
PR2 Non-compliance with health and safety standards	42
PR3 Product information	43
PR4 Non-compliance with product information standards	43
PR5 Customer satisfaction	44
PR6 Communication programs	
PR7 Non-compliance in marketing practices	
PR8 Complaints regarding customer privacy	
PR9 non-compliance sanction	



TECO ELECTRIC & MACHINERY CO., LTD.
5F., No. 19-9, San Chong Road., Nan Gang, Taipei, Taiwan, R.O.C
www.teco.com.tw

TECO

