

TECO NEWS

- Chairman Huang Shores Up Bonds with El Salvador at 2004 Democratic Pacific Assembly
- Baycom sees NT\$100 billion potential Ultra Sidelight POF Fabric-Bright Prospects for Eye-catching Products
- Japanese Politicians Visit TECO
- Chairman Huang Appointed as APEC Business Adviser
- NBIC Opening & Academia Sinica President's Visit
- Today China, Tomorrow the World: TECO Plots Course for Global Growth

New Focus

Chairman Huang Shores Up Bonds with El Salvador at 2004 Democratic Pacific Assembly

The second annual conference of the Democratic Pacific Assembly (DPA) was held at Taipei in August to promote democracy, human rights and industrial development. Theodore Huang, chairman of both the TECO Group and Chinese National Association of Industry & Commerce (CNAIC), was invited to be the moderator for the DPA Seminar Session.

Distinguished participants at DPA included President Elias Antonio Saca of El Salvador, Vice President Arturo Vallarino of Panama,

President Chen Shui-bian of Taiwan and Vice President Annette Lu of Taiwan, and so on.

At the conference, Chairman Huang represented the CNAIC in signing a joint memorandum respectively with the National Association of Private Enterprises, Salvador Industry Association and Salvador Business and Industry Chamber. The signatories pledged to work together to develop economic and trade relations between El Salvador and Taiwan through closer contacts and information exchange. ●



First left: TECO Chairman Theodore Huang, Middle: El Salvador President Elias Antonio Saca, Second right: Taiwan President Chen Shui-bian.

Japanese Politicians Visit TECO

A delegation of parliamentarians and prefecture councilors of Japan's Liberal Democratic Party (LDP) visited TECO's headquarters at the Nankang Software Park in late August. TECO Chairman Theodore Huang delivered a speech to the delegation on the outlook for Taiwan's industrial development.



Group picture taken at TECO Headquarters

The delegation was organized to promote exchanges among younger parliamentarians and councilors of the two countries and thereby enhance Taiwan-Japan relations. The delegation also called on President Chen Shui-bian and former President Lee Teng-hui during the trip. ●

Bright Prospects for Eye-catching Products

Baycom sees NT\$100 billion potential in Ultra Sidelight POF Fabric

Baycom Optoelectronic Co., Ltd. and the China Textile Institute on August 18 jointly unveiled products with their co-developed "ultra sidelight plastic optical fiber (POF) material."

Optical fiber textiles are made of energy efficient LED optical fibers. The soft and comfortable material can be illuminated for 100,000 hours with one small battery and used to make apparel, rope, and other items. At the product demonstration, models showed off various items made with the material, including motorcycle attire, dog collars and bicycles with illuminated wheels, providing a glimpse at the unlimited creative potential in the new market.

Baycom Chairman C.K. Liu recently announced that his company has received an NT\$300 million order from Japan to supply 100,000 leashes made from the material. In future, the company will test out the sporting good and Christmas ornament markets. Other potential markets for the high-tech material include the textile, leisure, safety signal, advertising, and pet, hiking and camping product industries. Liu estimated that the value of the global market for products using the material could approach NT\$500 billion in 10 years. ●



TECO Bets on High-tech Future with New R&D Focus



Since its founding a half century ago, TECO has endeavored to grow from a single industrial-based company into a diversified high-tech conglomerate. To this end it has invested heavily in the research and development of innovative new technologies in order to add value to so-called conventional products, like industrial motors and household appliances.

Traditional Products with a High-tech Makeover

For example, TECO is exploring new possibilities of nanotechnology in promising

new products, such as nano-PCO (photo-catalytic oxidation) air purifiers. These purifiers use crystalline molecules of titanium dioxide (TiO₂) to drive oxidation and reduction reactions on the catalyst surface. The reactions convert organic pollutants to carbon dioxide and water-an oxidation process called photo-catalysis. Photo-catalytic nanotechnology is capable of rapidly destroying toxic components, eliminating odors and filtering out fine dust. TECO donated several nano-PCO air purifiers to hospitals during the SAR outbreak last year.

The same photo-catalytic nanotechnology is also used for TECO's nano-infrared refrigerator to reduce smells. A nano-grade coating in the refrigerators emits far-infrared wavelength to keep perishable goods fresher longer by slowing the evaporation rate of water molecules inside produce and slowing down the oxidation rate of meat. This preservative function can be a big boon to people who buy groceries in big quantities for use over a relatively long period of time.

Braving New Technological Frontiers

In addition to utilizing new technologies in traditional businesses, TECO has expanded its strength to several state-of-the-art fields, including CIS (contact image sensor), OLED

(organic light emitting display) and nanotechnology. TECO's investment company, Creative Sensor Inc., is the world's leading manufacturer of color CIS, a key component in printers, scanners, copiers and fax machines. Another TECO subsidiary, TECO Optronics, focuses on the development and production of OLED panels. Such panels are expected to revolutionize the flat panel industry with advanced functions not available in current LCD technology, such as self-emitting light, wide viewing angle, quick response time, low power consumption, high contrast, high luminance, and thin profile. Moreover, TECO Nanotech has successfully developed 4 inch and 8 inch CNT-FED (carbon nano tube-field emission display) panels.

Building an R&D Powerhouse

TECO realizes that the key to thriving in the nonstop high-tech world is to pursue nonstop research and innovation. The TECO Group Research Institute (TGRI) was set up to engage in advanced R&D aimed at creating new technological applications for TECO's various businesses. We are confident that through constant innovation, TECO will consolidate its position of technology leadership in the global market. ●

New Focus



Chairman Huang Appointed as APEC Business Adviser

TECO Group and Chinese National Association of Industry and Commerce (CNAIC) Chairman Theodore Huang will serve as a representative on the APEC Business Advisory Council (ABAC).

The ABAC was established to solicit input from the business sector among APEC member states. ABAC

representatives meet before each of the four meetings of APEC senior officials every year to provide their views. They also meet ahead of the annual APEC ministerial meeting every year to make suggestions. The representatives also meet with participants in the APEC leaders' meeting to reflect the views of the business sector.

In addition to Chairman Huang, Henry Kao, Vice Chairman of I Mei Foods Co., Ltd., and Jeffrey Koo, Chairman and Chief Executive Officer of Chinatrust Financial Holding Co., Ltd. will also represent the Taiwan business community on the ABAC. ●



Left to Right: TECO President Sheng-Chyuan Lin, Academia Sinica President Dr. Lee Yuan-tseh, TECO Chairman Theodore Huang

NBIC Opening & Academia Sinica President's Visit

TECO Chairman Theodore Huang joined ROC Minister of Economic Affairs Ho Mei-yueh, Taipei Mayor Ma Ying-jeou and Academia Sinica President Lee Yuan-tseh at the opening ceremony of the Nankang Biotech Incubation Center (NBIC) at the Nankang Software Park (NKSP) Phase II area on August 27. The NBIC was established by the Ministry of Economic Affairs to fast-track development of Taiwan's biotech industry.

Dr. Lee visited the TECO headquarters at the NKSP Phase I area after the event and chatted with Chairman Huang. Dr. Lee praised TECO for its ability to quickly adopt new technologies. For the past 10 years, Dr. Lee has been the distinguished guest at the TECO Award Ceremony, held annually to encourage social, scientific, technological and cultural advancement. ●

Today China, Tomorrow the World: TECO Plots Course for Global Growth

Since its founding in 1956, TECO has developed from a local industrial powerhouse specializing in manufacturing motors into a highly diversified conglomerate with operations around the world. Building on its core businesses, TECO has trail-blazed into new frontiers, making its mark on the global map and building a world-class brand that has become synonymous with innovative technology and top quality service.

Critical to TECO's globalization efforts has been the establishment of a solid operations base in China. With a population of 1.3 billion and vast territory, China is barreling forward at breathtaking speed, creating new opportunities both as a huge market and as a competitive production base. This is especially true of the market for TECO's core business in home appliances, as China's share of the output in the segment approaches one-third of the world total.



In capitalizing on China's potential, TECO has been an industry leader. Since setting up the TECO Shanghai Logistic Center in 1999, TECO has established Suzhou TECO Electric, Wuxi TECO Machinery, Wuxi TECO Electric Scientific Park, TECO (Dongyuan) Air-conditioning Equipment Co., Nanchang TECO Scientific Park, Wuxi Taian Technology, Suzhou Lienchang Machinery, Shanghai Dongpei Industry, and other affiliates. These affiliates have enabled the company to bring its operations in six product categories to the next level.

Industrial Products & Systems

Taking aim at Jiangsu Province, TECO Industrial Product & System Sector has established factories in Suzhou and Wuxi on sites with a total area of about 100,000 square meters. Established in 2000, Suzhou TECO Machinery primarily manufactures three-phase motors in 1/4hp to 1,000 hp specifications. Its distribution area covers northern, eastern



and southern China, and the company aims to create a fully national distribution network before long.

In 2001, Wuxi TECO Machinery was created to produce mid-size and large-size motors in the 300 to 400 hp range, with a production capacity of 200,000 to 300,000 motors a year. TECO is planning to build another motor plant in Wuxi, which will increase its mid-size and large-size motor production capacity to 1 million units annually. Including these products into its global marketing network, Chairman Theodore Huang predicted that TECO's turnover from its China operations will reach NT\$20 to 30 billion, turning TECO into one of the largest motor producers in the world.

Consumer Appliances & Service

TECO Consumer Appliance & Service Sector has established science parks and global manufacturing centers in Jiangxi and Guangzhou.

TECO (Dongyuan) Air-conditioning Equipment Co., created in 1999, focuses on the production of various types of commercial air-conditioners, such as water-cooled package A/Cs, air-cooled package A/Cs, air-cooled chillers, household central A/Cs, ceiling concealed A/Cs, and air handling units. These air-conditioning products have been marketed in the northern, eastern, and southern regions of China. The company has also formed synergetic ties with TECO's other operations.

Nanchang, in Jiangxi Province, enjoys an excellent geographic position at the hub between the Yangtze and the Pearl river deltas. It is also at the crossroad of land and sea transportation lines, providing rapid transport links to other parts of China. This area is home to clusters of aerospace and automobile companies, as well as a large number of consumer product makers, all aided by ample supporting industries.

With China currently producing about one third of the world's home appliances, Nanchang TECO Science Park will soon emerge to become the global production center of the entire TECO group. In this capacity, the 594,000-square-meter park will be home to factories with some 6,000 workers, churning out AV equipment, home appliances (mainly white goods), compressors, and LCDs.

In the initial stage, products manufactured at the park will be both exported and sold domestically throughout the mainland market. The park will also have comprehensive functions to fully meet the needs of production, living and environmental protection. It will be divided into four main areas and be opened up to satellite factories.

IT & Optronics Products & Telecommunications

TECO IT & Optronics Product Sector is establishing the Wuxi TECO Electric Science Park and Global Manufacturing Service Center. Bringing together innovative technology and horizontally integrated production chains, the center will be used to produce AV, communication, opto-electronics and OA products, fully demonstrating TECO's strengths in supply chain management, design support, and certification capability.

Global Vision

Based on its strategic investment plan, the TECO group has established closely linked footholds in China, invested in related industries, and set up regional and local R&D centers. By utilizing local resources to quickly expand its marketing and service presence in China, TECO hopes to gain a strong market advantage and bring the full force of its integrated resources to nimbly respond to market changes. TECO is determined to achieve synergy among its six main business sectors to bring about a win-win outcome in expanding into the Chinese and global markets. ●



TECO Grabs Smart Card Throne

Following its successful bid to supply the cards for Taiwan's national health insurance program and highway ETC (electronic toll collection) system, TECO in June won a contract to supply 6.5 million IC cards for the postal deposit system and 1.3 million IC cards for Taishin International Bank. The contracts are expected to add more than NT\$200 million to the company's revenue, consolidating TECO's position as the biggest IC card provider in Taiwan.

TECO is currently in talks with Chinatrust FHC, Citibank, HSBC, and Chang Hwa Bank over potential smart card contracts.

The company is hopeful that it could secure several big-ticket orders for IC-embedded financial cards by year-end, lifting its total IC card orders for the year over the 10 million-mark. The company aims to produce 50 million IC cards next year, giving it a 50% share of the Taiwan market.

TECO Chairman Theodore Huang estimated that the demand for smart cards in Taiwan next year would reach 100 million units, aided by the universal adoption of the cards under the national health insurance program, an appeal by the Ministry of Finance for banks to adopt the cards by the



end of this year, and announcements by VISA and MasterCard that all of their credit cards will have IC chips by 2006. In order to tap this market, TECO will draw on its extensive know-how in setting up the IC card system for the national health insurance program, as well as its stored value card technology and customer support network. ●

TECO Tech

New A3-sized Multifunction Digital Copier —DOCUJET 3800 series

A new All-in-One, A3-sized Multifunction Digital Copier, DOCUJET 3800 series, Teco Image Systems (TIS) formally launched in the end of July, integrates the digital copier, printer, fax and scanner capabilities into a single, efficient and reliable device designed for large-volume office use.

The new DOCUJET 3800 series comes in four different models, which differentiated by its print speed, fax availability, and duplex support. Compared to its predecessor DOCUJET 3700 series, the DOCUJET 3800 series almost looks like the same except its outward from green-blue to dark-gray color. Its enhanced function includes faster

copy/print speed up to 20/16ppm, less first copy time (< 7 sec from platen) and less warm-up time (< 15 sec). Besides, the most advanced difference is to support duplex copy/print outputs leading to save paper consumption.

The more versatile optional accessories make it attractive to satisfy customers' different changing needs. In the meanwhile, for customers' easy and economical upgrades, DOCUJET 3800 series could be configured with the common accessories of its predecessor, such as 50-sheet ADF and optional 250-sheet universal cassette units. ●

—Flora Wang



Not Just for Phone Lines Anymore: Baycom Takes Optical Fiber into the Fashion World

Baycom Opto-Electronic Co., Ltd., founded by TECO subsidiary TECOM Group, is the leading plastic optical fiber (POF) producer in Taiwan as well as one of the top-five electronic and machinery manufacturers in the world. Baycom is also the first company in Taiwan to win manufacturing and sales rights for Lucent Technologies' LC connectors and adapters.

In addition to its telecommunication applications, fiber-optic technology is increasingly finding its way into consumer goods, including textiles, toys and pet products. About two years ago, Baycom and China Textile Institute

launched a research project to design and manufacture "ultra sidelight POF material." POF textiles are made of POF and yarn and illuminated by LED light sources. Researchers reshaped the POF tube to achieve brighter illumination and easier combination with yarn. They also recounted the reflection rate of optic fiber to achieve full reflection.

Currently, Baycom is revving up its POF marketing efforts, including conducting surveys of market needs in this area so as to develop high demand items with significant added value. For example, one brand-name producer of hiking wear is planning to use optical fiber for the logo on their jackets. The luminescent logo not only serves as an eye-catching brand

builder, but also helps climbers to follow team members when moving at night. The same idea can also be used in motorcycle attire, vests for traffic policemen, sneakers, and other applications. ●



News Clippings

TECO Group

3D products steal spotlight at National Awards of Excellence

TECO Electric & Machinery joined Tatung, Asustek Computer, BenQ, Gigabyte Technology, Roma Tile, Matsushita Electric (Taiwan), Kolin, and Sampo in winning the "Outstanding Companies" award in the 12th National Awards of Excellence, jointly organized by TAITRA and the Bureau of Foreign Trade. The new award is presented to companies with 50 or more products that have earned the "It's Very Well Made in Taiwan" symbol—*Economic Daily*, 6/18

TECO's global operations expand in Northeast Asia and Europe

The TECO Group continues to invest in the U.S., Malaysia, and mainland China. The company recently completed its deployment in the mainland motor market with the establishment of a beachhead in western China and a plant expansion in Wuxi. The company's next step is to open plants in Northeast Asia and Europe to extend its operations throughout the world.—*Commercial Times*, 6/23

TECO's heavy electric and home appliance operations set to take off in second half

TECO Electric & Machinery posted a nearly 30% year-on-year revenue gain in July, while second quarter revenue at NT\$7.4 billion was up about 10% over the quarter before. Earnings in the first half are estimated at about NT\$270 million. TECO's motor and heavy electric output has advanced steadily, while the company's emerging home appliance and IC card businesses are expected to pick up in the second half.—*Commercial Times*, 8/3

TECO taps Middle East market with Japanese ally

TECO teamed up with a major Japanese firm this August to supply OEM motors, home appliances and IT products for export to the Middle East. The deal will extend TECO's overseas presence from Europe into the huge Middle Eastern market.—*Commercial Times*, 8/3

TECO donates NT\$10 million reconstruction in disaster areas

Following the devastating floods caused in Taiwan by typhoon Mindulle, the TECO Group announced that group affiliates, including TECO Home Appliance, MOS Burger, Royal Host, Taiwan Pelican Express Co., Ltd., as well as the TECO staff, would donate NT\$10 million in relief materials and funds to help with the reconstruction effort.—*Yam.com*, 8/9

TECO's July revenue soars 29.1% to NT\$2.41 billion

Revenue of TECO Electric & Machinery
(Unit: NT\$ billion)

	July	Jan.~July
2004	2.41	16.55
2003	1.87	12.90
Change (NT\$)	0.54	3.64
Change (%)	29.10	28.23

—*Chinatimes.com*, 8/11

Industrial Product & System Sector

TECO advances full throttle on Siemens and ABB

TECO recently gained operating rights to four motor factories in western China with the signing of an agreement with Jiangxi Electric, George Lien, Sector Executive of TECO's Industrial Product & System Sector, disclosed. In addition, TECO plans to ante up NT\$400 million to build a new small motor plant in Wuxi. The two projects involve a total investment of NT\$1 billion, with the new plants scheduled to begin production next year, bringing TECO's mainland motor production value to NT\$100 million.—*Commercial Times*, 6/23

Consumer Appliance & Service Sector

Taiwan Cellular and Chunghwa Telecom lock horns in TV shopping market

Fubon Venture Capital will direct the shopping channel venture, which will bring together TCC's customer service center, the home delivery service of TECO affiliate Taiwan Pelican Express, and financial services of Fubon to tap opportunities in the rising TV shopping market.—*Commercial Times*, 6/22

Mos Burger opens 100th restaurant in Taiwan

Mos Burger (Taiwan) recently opened its 100th restaurant in Taiwan. Theodore Huang, chairman of the TECO Group, a major Mos shareholder, said that Mos has succeeded in breaking into the Taiwan market. He forecast that the chain would open its 200th restaurant within three years.—*Yam.com*, 8/9

IT & Optronics Product Sector

TIS expects strong second half with opening of new Dongguan plant

Following on the heels of its Suzhou plant inauguration, TECO Image Systems (TIS) in June completed the main work on the relocation of its production line in Dongguan construction. The new line and old leased plant give the company a combined production capacity in Dongguan of NT\$300 million, enough to handle anticipated growth. TIS estimates that the increased efficiency of the Dongguan plant will help it boost monthly revenue above NT\$200 million.—*Commercial Times*, 7/30

Telecommunications & Service Sector

TECOM's first-half profits outstrip earnings for all of 2003

Surging sales of Innostream handsets and Sony Ericsson cell phone engines and dual-mode cards pushed TECOM's June revenue past the NT\$1 billion-mark, a record high. The company's earnings in the first half of the year outstripped profits for all of 2003. TECOM also expects to post non-business earnings of NT\$80 million from the sale of shares in Far EasTone Telecommunications.—*Commercial Times*, 7/8

Baycom bags NT\$300 million leash order

TECOM-invested Baycom Optoelectronics Technology has developed LED "optical fiber textile" technology. The company has already received an NT\$300 million order from Japan for 100,000 dog leashes made from the material.—*Apple Daily*, 8/18

Baycom sees NT\$100 billion potential in Ultra Sidelight Optical Fiber products

Baycom Optoelectronics Technology and the China Textile Institute unveiled a new line of products made with "ultra sidelight fiber optic textile" material. The company is applying for over 40 new discovery and new design patents on the revolutionary material, the global market for which the company anticipates at NT\$100 billion.—*Central News Agency*, 8/18

Information System & Service Sector

TECO to introduce multifunctional IC cards

TECO Smart Card Division made its first step into the financial sector. TECO Chairman Theodore Huang said that the division, in cooperation with Japan's JCB credit card company, would issue Taiwan's first multifunctional IC card joining gate control, value storage, withdrawal, and credit card functions.—*United Daily*, 6/17

TECO grabs throne in Taiwan's smart card market

TECO has become the new king of Taiwan's "smart card" industry. In addition to winning follow-up contracts to supply the cards for Taiwan's national health insurance program and highway ETC systems, TECO recently won a bid to supply 6.5 million IC cards for the postal deposit system and 1.3 million IC cards for Taishin International Bank. The contracts are expected to generate revenue topping NT\$200 million, consolidating TECO's position as the biggest IC card provider in Taiwan.—*Commercial Times*, 7/10

TECO Group to Launch Research Institute in October

Innovation has always been one of the guiding motives behind the business expansion decisions made at the TECO Group. With the inauguration of the TECO Group Research Institute (TGRI) on October 30, 2004, the group will mark a significant stride forward in its determination to sustain both growth and profitability via continuous investments in long-term technology development and short-term product enhancement.

TGRI currently has five talented R&D teams committed to developing advanced



technologies and products to meet the future needs of both industrial and individual customers across various business sectors. It will also act as a technology platform within the TECO Group to facilitate knowledge-sharing among researchers and developers, exploit synergetic opportunities among business units, and effectively leverage group resources. In addition, TGRI has partnered with the Ministry of Education to launch a nationwide Industry-University Liaison Program to supplement our existing competencies with the aid of external academic resources.

As a group-level research arm, TGRI will draw on the enthusiasm and interdisciplinary talents of its R&D teams to make new advances in advanced display technologies, information appliances, DTV, industrial

appliance efficiency, and IP management. Research projects are initiated with clear strategic goals that can produce measurable operational or market benefits and contribute to the overall success of the TECO Group. ●

Editors Say

TECO's High-tech Future

Technology is the path to ever faster and more efficient production as well as the development of value-added products that meet the evolving tastes and lifestyles of consumers.

TECO has revved up its efforts on the research and development of novel technologies not only to create value to so-called conventional products but to keep pace with the nonstop global trend.

The TECO Group Research Institute (TGRI) founded this year will be formally launched at TECO's 48th anniversary celebration on October 30. TGRI will engage in advanced R&D aimed at creating new technological applications for TECO's various businesses. Besides, TECO's subsidiaries specializing on technologically advanced products such as TECO Image Systems, Creative Sensor Inc. and Baycom are also in steady and fast growth.

At the time when we are going to celebrate TECO's 48-year-old birthday in October, besides praising TECO for so much great achievements so far, you might want to know more about TECO's wishes and new goals to be completed in the future. In the next issue, we would share with you the joy of TECO's birthday celebration and give you a hint about the future TECO. ●

TECO Honor

Promote Democracy in Pacific Zones TECO Receives DPU Youth

International youth of the Democratic Pacific Union (DPU) Internship Project visited TECO Group during a training session in Taiwan. TECO Chairman Theodore Huang showed them around TECO headquarters and shared his insights on the development and vision of enterprises in the Pacific area. The visitors were impressed by the scope of TECO's operations and the achievements made by the group during the past 48 years.

One of the goals of the training project was to cultivate in the next generation of leaders an enthusiasm for building a genuine

democratic Pacific community. It is hoped that the program participants will promote the ideals of the DPU in their native countries. ●



Business Ethics

TECO Sends Relief to Typhoon Victims

In early July, many parts of central Taiwan were seriously flooded by the torrential rains brought typhoon Mindulle and. To help the disaster victims, TECO mobilized all of the group's resources to donate funds and supplies with a total value of NT\$10 million.

TECO Household Appliances Division offered NT\$5 million worth of household electronics, as well as provided free check-up and maintenance services and various discounts. MOS Burger held an NT\$1 million fundraising campaign, donating NT\$1 for each rice burger sold. Taiwan Pelican provided the Red Cross free shipment services and Royal Host

contributed 2,000 packs of cooked curry. TECO also encouraged employees to support the tuition costs of children in the disaster areas. ●



TECONews

Published bimonthly
since May 1, 2004
by TECO Group

Publisher: TECO Group

Chairman & Managing Editor: Theodore M.H. Huang

Deputy Editor: Amy Y.C. Chen

Executive Editor: Yashu Lin

TECO Group Headquarters
5F, 19-9, San Chong Road,
Nan-Kang, Taipei, 115, Taiwan
Website: www.teco.com.tw
Call: 886-2-2655 3333
Fax: 886-2-2655 2261
Editorial: yashu@teco.com.tw

發行所：東元電機股份有限公司
發行人：黃茂雄

地址：115台北市南港區三重路19-9號5樓
「中華郵政台北誌字第460號執照登記為雜誌交寄」

Printing: Sir Speedy Taiwan Co., Ltd.