

## Hot Topics

## TECO and Taiwan Glass Team Up to Tap Energy-saving Vacuum Glass Market

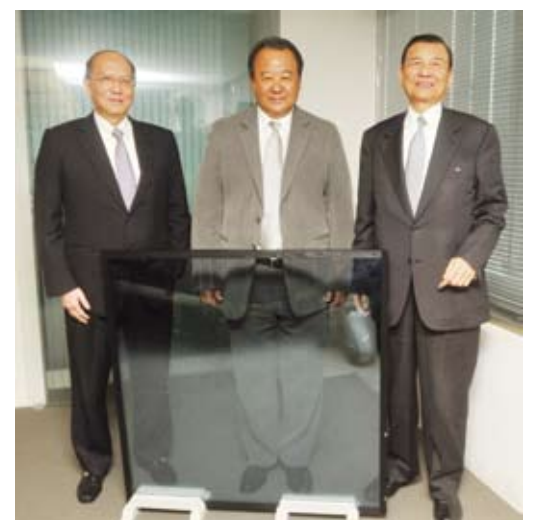
TECO is taking aim at the next green energy frontier. The group formally announced the formation of a joint venture with Taiwan Glass to combine core technology for the manufacture of vacuum insulating glass (VIG). The venture, named TG TECO Vacuum Insulated Glass Corp., will tap the cross-strait market for energy-saving VIG, with annual production value estimated to top NT\$1 billion.

TG TECO Vacuum Insulated Glass Corp. will have an initial capitalization of NT\$300 million. The company plans to begin mass production in October 2012, with annual output estimated at 360,000 square meters of VIG, positioning the company to realize business opportunities in the new-generation green construction market.

The key in bringing TECO and Taiwan Glass together is the vacuum implantation technology and equipment developed by Teconano. This know-how enables the extraction of air between two closely fixed sheets of glass laminate to achieve a constant temperature effect with resistance to cold and heat. The glass has also passed testing at the China Building Material Test and Certification Center (CTC), certifying its conformity to mainland China's highest window and door insulation standards. Along with Taiwan Glass's own Low-E glass processing technology, the venture will be able to produce Low-E nano-vacuum glass that is 53% more energy efficient than traditional glass, putting the company in a strong market position.

TECO Group Chairman Theodore Huang said that Low-E nano-vacuum glass is currently the most energy-efficient glass available today. The material has a wide range of applications, including material for green building windows, curtain glass, and automotive and aircraft windows. The heat and cold insulating function of the glass also make this a high-potential material for use in cold climate buildings.

In recent years, TECO has been aggressively developing its strengths in green energy technology. Under the "TECO GO ECO" slogan, the group has expanded into the wind power, electric vehicle, solar energy, energy-saving consumer appliance and other green fields. The group's successful foray into new-generation building materials marks another step in TECO's advance into the new energy-saving age. ●



(From left) TECO Group Chairman Theodore Huang, Taiwan Glass Group President & CEO P.S. Lin, and TECO Chairman C.K. Liu jointly announced the establishment of TG TECO Vacuum Insulated Glass Corp., a joint venture between Taiwan Glass and TECO.

## Mos Burger Supports "Journey of Books" Activity

The Mos Burger has teamed up with the Ministry of Education to support the "Journey of Books, Reading On My Way" public service event held by the Taiwan NPO Reading Alliance, a group bringing together nearly 100 public interest organizations. The activity involved the establishment of 173 "book sharing station" reading nooks, including 154 stations at Mos Burger restaurants and specialty shops and libraries in the Hualien and Taitung areas. The activity gives the public a chance to enjoy a good book with their meal. Good book lists and good book sharing activities further add to the activity's goal to promote reading. First Lady Christine Chow Ma, a long-term advocate for public service education, also took part in the event to share the joy of reading with children. ●

First Lady Christine Chow Ma (center) took part in the "Journey of Books" reading activity supported by Mos Burger.



## TECO Spotlight

# TECO Celebrates 55 Years Whirlwind Advance in the Global Green Energy Field

TECO Electric and Machinery turns 55 this year. Founded as a small electric motor plant in Taiwan, the company has grown over the years to become the world's third-largest producer of medium-sized and large motors, with a business scope extending to the heavy electric equipment, consumer appliance, communications, electronics, restaurant, and service sectors. The company has been tapping the global market with own-brand products. And with eyes on the next industry wave, it is positioned to make wind power a core business in the years ahead.

At the end of September, Chairman C.K. Liu visited Inner Mongolia to inspect the operations of TECO's first wind turbine. He said that the two-megawatt wind turbine was installed at the Huolinhe Dongshan Wind Farm in Inner Mongolia operated by China Datang Corp., TECO's strategic cooperation

partner. After a half-year in operation, the turbine has generated two megawatts of power and completed its test run. Datang has over 200 wind turbines installed, making it the second biggest wind power company in Asia.

### Steady Stream of Orders for Large Wind Turbines

As strategic partners, TECO and Datang will jointly tap business opportunities in China's wind turbine market. TECO has secured orders for 150 two-megawatt wind turbines for installation in Hebei. It also will successively supply large wind turbines for installation in Fujian, Zhejiang, Inner Mongolia and Jiangxi provinces.

In May this year, TECO received an order for 30 two-megawatt wind turbines for installation at the TNP Wind Farm in Vietnam. The company is producing the turbines at its Guanyin plant. It will ship the first 16 turbines in November and the other 14 early next year for assembly in Vietnam. The company's contracted wind turbine plant in Texas, USA, is producing over 70 two-megawatt wind generators, bringing TECO's annual output to 250 such generators. Chairman Liu is optimistic that TECO can maintain steady orders for 150 to 200 wind turbines annually.



*Chairman C.K. Liu visited Inner Mongolia to inspect the operation of TECO's first wind turbine.*

### Bright Prospects for Offshore Wind Turbines in Penghu

Chairman C.K. Liu also noted that the Ministry of Economic Affairs' Bureau of Energy expects to conduct offshore wind farm tests in Penghu. The sea area around Penghu could support 400 five-megawatt wind turbines and generate revenue of NT\$320 billion over 20 years.

TECO is now in talks with a major European wind turbine producer over technical cooperation. It plans to import two 3.5-megawatt wind turbines with a combined generation capacity of 6.5 megawatts to bid for the contract to supply turbines for the Penghu offshore wind power project. Chairman Liu emphasized that, TECO has developed permanent magnet synchronous wind turbine techniques based on its core transformer technology. The technology meets mainland China's low voltage ride through

(LVRT) requirements for wind turbine suppliers so that wind-generated electricity can be linked to the main power grid. TECO has produced Taiwan's first two-megawatt wind turbine and sees strong future growth in the segment in Taiwan.

### Riding High on Green Energy

In sum, TECO's new energy business is focused on wind power generation, frequency conversion air conditioners, and other energy-saving products. In the energy-saving field, TECO has been raising the bar for high-efficiency motors and incorporating frequency conversion technology in air conditioners, refrigerators, washing machines, and other consumer appliances. In the area of carbon reduction, the company is developing both land-based and offshore wind power generation solutions.

TECO is also building on its existing strengths through expansions into other green energy products, including PV inverters, solar energy water heaters, nano vacuum insulated glass, and electric vehicle hub motors. TECO does not produce solar energy, but it does make 5KW, 20KW and 100KW PV inverters. It also has developed a sub-5KW PV inverter. ●

### Developing a Second Strategy with a "Plus" Philosophy

TECO's foray into the wind power industry represents a new step building on its core heavy electric and consumer appliance businesses. Chairman Liu said that, "As a leader, the most important task is to formulate a forward-looking development plan and vision for TECO." With this in mind, he has led TECO into the new energy business under the guiding principle of a "second strategy" and "plus" philosophy.

This so-called second strategy does not mean departing from TECO's core business, but rather strengthening and extending from that core to create more room for the company's future growth. Chairman Liu said that, during his tenure at the company helm, he aims to focus on new energy and turn TECO into a "global energy company."



## Universal Vision

### Taian Technology (Wuxi) Opens New Plant

TECO Electric and Machinery is steadily cultivating business in the green energy market. On October 18, the company's electrical control subsidiary Taian Technology (Wuxi) held a ceremony to inaugurate its new plant at the National High-tech Industrial Development Zone in Wuxi City, Jiangsu Province. Local senior officials attended the ceremony to congratulate the company. The event was also joined by representatives of key players in the domestic and overseas industrial automation control and component field, highlighting the widespread attention attracted by the new plant.

#### TECO for Power, Taian for Power-saving

Taian Technology plays an important role in TECO's drive to develop business opportunities in the energy-saving market. Established in Wuxi in 2000, the company built the new plant with an eye to strong demand in the energy-saving market. TECO Chairman C.K. Liu said that Taian Technology uses high-end technology to make new types of specialized electronic equipment conforming to international environmental protection requirements. Its products have applications ranging from traditional industries to wind power generation, making the company a first-choice international-class machinery and industrial automation control brand. In conjunction with TECO Group's extensive



(fifth from left to far left) TECO Group Chairman C.K. Liu with TECO Group President Sophia Chiu, Chief Executive of Industrial Product & System Sector, S.C. Lin, Assistant Vice President Steven Chiang, Taian Technology (Wuxi) General Manager George Hsu, and Wuxi Deputy Mayor Fang Wei (fifth from right) and other senior local officials joined in the ribbon-cutting ceremony to inaugurate the new plant.

global marketing channels and strengths, Taian Technology has deeply penetrated into the China market and has also made broad inroads in Europe, the United States, Australia, the Middle East, Southeast Asia, and high-potential emerging economies, including Brazil, India, and Turkey.

Under the slogan of "TECO for Power, Taian for Power-saving," Chairman Liu expressed his expectations that TECO would position as the world's third-largest producer of industrial motors, while entrusting Taian Technology to focus on the production of frequency conversion, energy-saving products. ●

### TECO Group Holds the Second Award Ceremony for Outstanding Overseas Sales Personnel

TECO Group held its annual outstanding overseas sales personnel award ceremony this year on October 7. The ceremony was attended by outstanding company employees from abroad, as well as senior managers of various group affiliates. Participants enthusiastically interacted and exchanged experience during the event, which also helped to build group unity.

The award winners were selected through a strict evaluation and selection mechanism. The commendation awards were presented this year by Chairman C.K. Liu and President Sophia Chiu in recognition of outstanding achievement by TECO sales personnel worldwide. Chairman Liu encouraged the award winners to continue to reach for new heights of performance in future.

The excellent performance by this group of model sales personnel has played a key role in TECO's rapid development in overseas markets this year. The award presentation represents a morale boosting honor shared by the group's various overseas affiliates and aims to power TECO to an higher achievements in 2012. ●



Chairman C.K. Liu (sixth from right), President Sophia Chiu (sixth from left), Assistant Vice President Lin Hong Hsiang (fifth from left), and Assistant Vice President Steven Chiang (fifth from right), and outstanding overseas business award winners and the award ceremony.

#### Winners of the Outstanding Overseas Sales Personnel Award 2011

Company	Name
TECO-Westinghouse Motor Company	David Kessel
TECO-Westinghouse Motor Company	Ray Bennett
TECO-Westinghouse Motor (Canada) Inc.	Darren Sikora
TECO-Westinghouse Motor Company,S.A. de C.V.	Jesus Baltazar
TECO Australia Pty Limited	Tom Pattison
TECO Australia Pty Limited	Andrew Chang
TECO Electric & Machinery Pte Ltd.	Hsiang Kuang-yung
Wuxi TECO Electric and Machinery Co., Ltd.	Wu Lili
Wuxi TECO Electric and Machinery Co., Ltd.	Yang Yongtao
Jiangxi TECO Electric and Machinery Co., Ltd.	Wu Yueqin
Jiangxi TECO Electric and Machinery Co., Ltd.	Xiong Jiawen
Taian Technology (Wuxi) Co., Ltd.	Qian Xiaofeng
Taian Technology (Wuxi) Co., Ltd.	Li Hongyuan
Taian Technology (Wuxi) Co., Ltd.	Liu Huaxiang
Xiamen TECO Technology Co., Ltd.	Su Yunfang

## TECO Highlights

## TECO in the News (2011.09~2011.10)

## \*Industrial Product &amp; System Sector

## TECO Joins Green Industry Show

Major players in the energy, environmental protection and water technology industries came together at the 2011 Taiwan International Green Industry Show (TIGIS) held by the Taiwan External Trade Development Council (TAITRA). TECO showcased its R&D and innovation in energy-saving heavy electric and electrical control products at the event, which attracted over 10,000 domestic and foreign buyers and generated green business opportunities. (October 26, Commercial Times)

## TECO takes aim at NT\$5 billion hub motor business

TECO and Japan's SIM-Drive inked a hub motor joint production agreement to tap a market with annual demand of 100,000 units, or more than NT\$5 billion, with an eye to huge demand in the mainland Chinese and Japanese markets. SIM-Drive will be in charge of R&D and design, while TECO will handle production.

Chairman C.K. Liu said that SIM-Drive has procured 100 hub motor sets and completed testing. Hub motors are installed in the hubs of wheels to give electric vehicles a greater burst of power and driving range. The two sides will jointly develop business in the mainland's electric vehicle market. (September 26, Economic Daily News)

## \*Consumer Appliance &amp; Service Sector

## Mos Burger expands to America: Seizing a beachhead in the birthplace of fast food

An-Shin Food Service said that it would expand its overseas operations to mainland China, Australia, and the United States. The company is in talks with Japan's Mos Burger to bring the chain to the United States, the birthplace of fast food. An-Shin Vice President Shang-jen Huang said that the company will develop overseas markets. It is testing the waters first in Australia, where it plans to open four restaurants this year. Looking to the mid-

term and long-term, the company also hopes to expand to the United States.

Mos Burger's presence in China includes four restaurants in Xiamen. The company plans to increase the number to nine by year end. Next year the chain will expand to Fuzhou, Quanzhou and other coastal cities. An-Shin Chairman Theodore Huang plans ambitiously to open a hundred Mos Burger restaurants in the mainland market. (October 25, Economic Daily News)

## TECO expects to ship 180,000 LCD TVs in 2011

TECO expects to ship 170,000 to 180,000 LCD TVs in 2011. The company delivered 120,000 to 130,000 sets in the first nine months of the year, or about 10,000 to 12,000 sets per month on average.

TECO is also rapidly advancing in the wind power generation and energy-saving markets. The company has been cultivating this sector in mainland China and is now eyeing other emerging markets, such as India, Brazil, and Turkey. TECO will continue to outsource LCD TVs from contract suppliers. Industry insiders say that the LCD TV market in Taiwan is mature and limited in scale, while sales in the North American market have steadily declined over the past two years. However, the sector has recently turned for the better and China remains a strong growth market. (October 21, DigiTimes)

## Taiwan Pelican delivers care during Palace Museum charity tour

In order to bring more art resources to eastern Taiwan and heighten artistic and cultural appreciation, Taiwan Pelican Express, the National Palace Museum and Dimension Endowment of Art teamed up for the "Power of Beauty—2011 National Palace Museum Art and Culture Charity Tour." Sponsored by the National Palace Museum Employees Consumption Cooperative, the event brings the power of beauty and a message of care to remote rural townships in the counties of Hualien and Taitung. (September 16, Central News Agency)

\*Investment & Holding Sector  
An-Shin Aims for Equity this Year

TECO Group member An-Shin Food Service (Mos Burger) is upgrading from the GreTai emerging market to an over-the-counter (OTC) listing in December, positioning the company to attract more capital this year and repeat its performance as the TECO Group's most profitable member. An-Shin has been a golden goose for TECO in the restaurant industry. Royal Host, another TECO affiliate, is aiming for an OTC listing in three years.

Mos Burger brought its fast food chain to Taiwan 20 years ago. The company now has 205 restaurants in Taiwan. Revenue is forecast to hit NT\$3.8 billion this year and could challenge NT\$4 billion. Both revenue and profit have enjoyed double-digit growth. (October 22 Economic Daily News)

## Green business bolsters TECO's Q4 profits

TECO posted revenue of NT\$19.579 billion in the first nine months of the year, up 11.24% over the same period a year earlier. Last year, TECO posted consolidated revenue of NT\$45.043 billion, a net profit of NT\$2.721 billion, and per share net profit of NT\$1.38, representing the company's best profit performance in three years.

The company forecasts that TECO's per share net profit will rise to about NT\$1.6 to NT\$1.8, topping last year. TECO also expects revenue from electrical controls and wind turbine to add to the company's profits. (October 19 Economic Daily News) ○

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