BRAND NEWS

Vol. 25
February 2016
DELTA BRAND NEWS

Delta amazes
the world with
its energy-saving strength at COP21

DELTA BRAND NEWS

CONTENTS

BRAND NEWS Vol. 25

Delta Brand News Bi-Monthly December 1, 2011 founded
Publisher / Ping Cheng
Editor in Chief / Shan-Shan Guo
Editorial Board / Andy Liu, Zoe Cherng, Charlie Pai, Jack Lin, Jesse Chou, May Wu, Sonia Wang, Wim Chang, Yiching Chang, Yi-Wen Wang
Editor / Maggie Hsia, Sandy Chien, Shalom Hung, Paul Lin, Zoe Sun, Jensen Wang, Annie Cheng

FROM THE EDITOR

Early December, before we set off for Paris to participate in COP21, I received several correspondences to show their support. Two letters in particular took me by surprise. They were from my "counterparts" during the award ceremony of Taiwan Top 20 Global Brand, with whom I hurriedly exchanged name cards , and with whom our company vied for places under the same competitive category. When they saw the media coverage of Delta prior to the Paris trip, and learnt that Delta was about to bring energy-saving solutions to the summit of climate change negotiations that the whole world is watching, they sent the following words:

From a leading bicycle brand :
"Your company has been good at green field, with very good reputation. You are pride of Taiwan. Congratulations."

The other came from a corporation based in Hsinchu Science Park:
"Thank you for giving us the "Run for Water, Water for Run" exhibition and all the green buildings…, thank you for giving Taiwan a voice on the international stage, for letting the world see Taiwan, and for representing Taiwan in making contributions to the world."

Delta's "Road to Paris" was the culmination of many years of hard work. Delta has been persistent in these values and the consistency is so powerful to earn the hearts of people near and far. In this special report, we will revisit the scene of COP21 with everyone, to bear witness to this historic moment.

The Paris Agreement replaces the Kyoto Protocol to become the latest guidelines for the international community's fight against global warming as well as for energy conservation and reduction in carbon emission. The concept of this new climate change agreement is innovative. Besides placing emphasis on the accuracy and transparency of information, it also pays attention to different countries' varying abilities to achieve emission reduction and takes into account views such as human rights and races. Want more details on this new climate change agreement? Don't miss this issue of Brand Academy.

Last year we interviewed various management executives of Delta who were in charge of branding and they shared the strategy and direction for business development. For this year's Brand People, we hope to focus on Delta's emerging orientation, to gain deeper insights into Delta's future development trends from the perspective of executives responsible for new business models and markets. During our venture to Paris, the energy-saving results of Delta's green buildings have garnered a high degree of recognition internationally. Many are curious as to whether Delta offer the service of energy-saving for buildings. Dongguan Plant is the forerunner of Delta's internal reform for energy conservation. For this issue's branding feature, we exclusively interviewed Mr. Rock Huang, General Manager of Dongguan Energy-saving Service Department, and invited him to share with us how the initiative started on home ground with the Dongguan plant, the outstanding energy conservation effects achieved that received high praises from the local government, and the energy-saving services that unfolded against such background to gradually form a new business model.

Another emerging business model worth mentioning is Delta's first proprietary large-scale solar plant located in Ako City in Hyogo, Japan. It uses 17,256 solar modules and 185 units of Delta's RPI-M series string PV inverters. Taking up an area of 96,000 square meters, it generates approximately 4,900,000 kWh per year, which is equivalent to the electricity consumed by 930 local households annually. The power generated by this new Japan power plant will be sold entirely to the power company, creating a brand new business model for Delta. Don't miss our news report on Brand Circle.

Shan-Shan Guo,
Brand Management Office

Delta hosted Green Building Exhibition at Grand Palais, Paris

Delta amazes the world with **its energy-saving strength at COP21**

Text by Brand Management Office

On December 1, just as dawn broke in Paris, members from Delta's advance team for COP21 had already put on their heavy coats and met in front of the Grand Palais, getting ready for the online press conference with Taipei. After 334 days of preparation, Delta is ready to showcase its concerns on climate change and commitment to carbon reduction at this international event. The media had also provided wide coverage for this trip to Paris, reporting how Delta, a longtime leader in green buildings, has positioned Taiwan in the international arena. It would let the world see the efforts of the organization, once again increasing Delta's brand recognition. We reached out to the world through side events, and exhibited Delta's technological strength in energy-saving through exhibitions and videos at the Grand Palais in Paris. In this special report, we will bring you our journey to the Paris climate conference, following the footsteps of Delta's COP21 team.

Building a 7-meter high panorama theater in 30 hours, a race against time

Delta21@COP21 Green Buildings Exhibition kicked off Delta's participation in the historical COP21 event, unveiling Delta's ten years of green building experience and stories.

Beginning in 2007, the Foundation has participated in the United Nations Climate Change Conference for nine consecutive years. In 2014, it made a breakthrough with side events, sharing Delta's results for the post-disaster construction of Namasia Ming Chuan Elementary School. In 2015, Delta Group and the Foundation expanded the scale by holding a Green Buildings Exhibition at the Grand Palais in France, which showcased its construction of 21 green buildings in ten years. The highlight of the exhibition venue was a panorama theater resembling a thorn apple flower. The theater may look familiar to all as it is in fact a replica of the Namasia library. The huge 7-meter high structure required completion by the exhibition's preparatory team in less than one and a half day since the organizer only allowed 30 hours for construction. Besides building the main structure, the team needed to set up and test a 3-meter long panorama fusion projector inside the theater. To beat the clock, the preparatory team shipped all materials to Taiwan in October in advance, and borrowed the National Taichung First Senior High School's premises to pre-build, carry out walk-throughs, and make adjustments to the process. Thanks to this rehearsal, this thorn apple flower blossomed at the Grand Palais, Paris.

"Building Harmony with Nature" video guided visitors to the Kaohsiung Namasia Ming Chuan Elementary School, which mimics a flower, the Magic School of Green Technologies at National Cheng Kung University which embraces nature, and the Delta plant that uses stones as shade. Click to watch the video

The 7-meter high panorama theater is huge yet simple and elegant. It was constructed by Delta's Display System Integration (DSI) team, displaying every scene, the eco-engineering method, as well as the energy efficient technology of Delta's green buildings, through the Digital Projection Titan high lumen projector. Vivid images were presented through these huge and high fusing screens. Based on the theme "Building Harmony with Nature", the video presented the beauty of Delta's green buildings to the world. Delta's hopes that the energy-saving potential of green buildings will gain wider attention, through the power of beauty.

The green panorama theater blossoms like a thorn apple flower in the Grand Palais, Paris


Green building education starts young


The exhibition hall is a library that stores Delta's green building experience

The design of the exhibition venue mimicked a library, and consisted of four themes: the first chapter, "Smarter", relates the beauty of local buildings; "Greener" looks back at Delta's 21 green buildings in ten years; "Together", agreeing to make a change; and the last chapter is the panorama theater that highlights Delta's journey in green buildings. You may wonder how an exhibition with the theme, "Green Building", could resonate with audiences from all age groups. On a certain holiday when families came for the exhibition, the first thing that caught their eyes was the model of Delta Americas' headquarters. From the energy-saving descriptions outside the acrylic cover, the ground source heat pumps below the table, and guidance from the narrator, one seems to have stepped into the new net-zero-energy headquarters of Delta Americas which has made Delta proud. Videos of Delta's green buildings and energy-saving measures played through various tablet PCs in the exhibition venue, and the six-character interactive roleplaying games enable e-generation visitors to gain more knowledge on energy-saving. This edutainment approach conveys how each of us could play a role in fighting against the ±2 global warming.

The beauty of green buildings amazed Chinese and foreign journalists


Mr. Cheng being interviewed at the press conference by the media

On December 7, Delta hosted a press conference beside the green buildings exhibition, allowing the media journalists to experience for themselves and listen to the stories of Delta's green buildings beside the highest structure in the Grand Palais exhibition venue, a panorama theater that resembles Namasia library.

Delta founder Bruce Cheng, Chairman Yancey Hai, CEO Ping Cheng, Director of Delta's Road to Paris Campaign and Executive Director of the Delta Electronics Foundation Ms. Shan-Shan Guo, and General Manager of Delta EMEA Jackie Chang, attended the event. They elaborated on Delta's concrete results in energy-saving and green building, as well as shared Delta's sustainable development strategies and cases to the global media.

Mr. Hai explained the ground source heat pump design of the DPC's new America headquarters to reporters.

EMEA distribution partners are impressed by Delta's contribution to energy efficient practices

It is worth noting that Delta's EMEA Partner Event 2015 was organized specifically for the Grand Palais, where over 100 distribution partners from 65 countries could come to witness Delta's efforts toward the sustainability of the planet. As a way to promote "energy efficiency and carbon reduction" at the award ceremony, Mr. Bruce Cheng personally presented awards to those who have made great contributions to reducing CO_2 emissions. The award-winners were delighted and each brought Mr. Cheng's book for an autograph and a picture taken together with Mr. Cheng.

After the ceremony, all partners took a tour around the green buildings exhibition, observing the fine details of the green buildings and experiencing the projection effects of this panorama theater. All participating partners expressed their recognition of Delta's contribution to energy efficiency and promised to make a committed effort in creating a cleaner, greener earth for the generations to come.

EMEA distribution partners and the managerial staff of Delta took a picture together in front of the Grand Palais.

By promoting energy efficiency through green buildings, Delta wins international attention

Delta's CEO, Ping Cheng, proposed a concrete plan of energy efficiency on behalf of Delta Group.

As a global corporate citizen, Delta expressed its concern about climate change and put forth its valued opinions via three official side events as well as the Delta21 Forum held in the exhibit area of the Grand Palais.

Invited by the German Pavilion, Ping Cheng, Delta's CEO, Shan-Shan Guo chief brand officer and executive director of Delta Foundation, Maria Krautzberger commissioner of German Federal Environment Agency, Boris Palmer, mayor of Tuebingen, and Gianni Silvestrini, a representative of Kyoto Club, all attended these official side events where Delta shared its detailed technological plans on energy efficiency and emphasized that public awareness can only be enhanced through corporate promotion activities.

A bright note for SIF: Delta's energy efficiency and sustainable cities

On the other side of Paris, the SIF was conducted at Stade de France. This was the largest corporate-focused UN side event of COP21. On December 7th and 8th, over 1,300 key opinion leaders and industry representatives gathered here for this grand event. Yancey Hai, chairman of Delta Electronics, the governor of the State of Mexico, and a number of world-class corporate leaders such as Danfoss and Autodesk, all voiced their concern and proposed ideas at the forum "Sustainable Cities: Increasing Efficiency and Transforming Design".

Chairman of Delta Electronics Mr. Yancey Hai informed other business partners at SIF of how Delta has achieved its core values by increasing energy efficiency.

An appeal for greater energy reduction to fight global warming

On the last day of the Green Buildings Exhibition, Delta invited experts, scholars, officials from government sectors, and industry leaders in various fields like energy conservation, architecture and meteorology from both sides of the Strait to take a short tour of the 21 green buildings constructed by Delta. During the tour, everyone enthusiastically exchanged ideas about how to learn from Delta's green buildings and save more energy. Ultimately objective of this tour was to urge international communities to pay more attention to the results and value achieved by sustainable architecture and join hands to create a smarter, greener life in the future.

Delta also invited a number of respected guests, including Ding-huan Shi, chairperson of the China Renewable Energy Society, Maria T. Zuber, vice president for Research at MIT, Jih-Chang Yang, senior consultant of the Industrial Technology Research Institute, ITRI, Ji-Shou Zhong, China National Engineering Research Center for Human Settlements, and Shirish S. Garud, associate director of India's The Energy and Resources Institute, TERI, to attend the side event at the same venue. Delta reminded the international community of the necessity of energy efficiency policy formulation to control the amount of CO_2 in the atmosphere and the rising of temperatures within 2 .

Many places around the globe have experienced abnormal weather conditions such as extreme cold. Now it is imperative for us to reconsider the potential risks behind the extreme weather. The Paris Agreement was finally announced by the foreign minister of France on December 12th last year, where it was greeted by a roar of applause in the negotiation area. The challenges have yet to present themselves, but one thing is clear: everyone can put forth a little effort to counter global warming for the benefit of the next generations and for the sustainability of the planet.

Mr. Bruce Cheng, Delta Group founder and honorary chairman, cited from the Group's experience solid evidence that saving energy can significantly reduce carbon emissions.

Delta reveals the latest consumer products at CES 2016

Text by Mike Gazzano / DPC

Delta attended the 2016 Consumer Electronics show in Las Vegas, Nevada in January. This year's CES brought together 3,800 exhibitors from all over the world, with attendance of over 170,000 visitors of which more than 50,000 were from outside the United States. The show's 2.47 million square foot exhibit space took up the entire Las Vegas convention center along with multiple other hotel convention centers in Las Vegas. Almost every type of consumer electronic product was available to view at CES, from automobiles to audio video and even drones, with the worlds most recognized brands in attendance.

"The Delta booth was the best so far", said M.S. Huang, President Delta Americas. The 30' x 65' Smart, Green, house highlighted the Delta, Vivitek, and Innergie brand names, with Innergie displaying the new PowerGear USB-C 45, PowerGear ICE 65, PowerJoy Plus 17, PowerJoy Pro 24, LifeHub Plus and WizardTip. Innegie's PowerGear ICE 65 was awarded the CES excellence award by Notebooks.com. Vivitek displayed the new Qumi Q6 (LED multimedia wireless projector), H1060 and H5098 (home cinema projectors), DH759USTi (Interactive 10-finger-touch projector), NovoPRO (wireless collaboration system) and NovoDS (digital signage solution), along with Delta EV chargers, LED lighting, PV inverters and Breez ventilation fans. Visitors and media showed great interest in the Delta products with the largest number of media interviews at CES to date. "Each year the CES grows in size along with the number of visitors and customers who stop by the Delta booth", said Mike Gazzano, Marketing manager. Delta will again participate in CES in 2017.

1.Group photo at Delta's "Smart Green House" themed booth at CES 2016

2.Innergie PowerGear ICE 65 was awarded the CES excellence award by Notebooks.com

Delta participates AHR 2016 to showcase Industrial Automation, Building Automation and Ventilation solutions

Text by Mike Gazzano / DPC

Delta attended the 2016 AHR Expo in Orlando, Florida in January. AHR brings together the industry's leaders in building HVAC and controls, showcasing the latest products, and technologies used in all types of buildings. Over 2,000 exhibitors showed off 500,000 feet of exhibit space with their products, related to HVAC heating, cooling and building control. Delta displayed Industrial Automation control products, Breez ventilation fans, cabinet thermal solutions, high power air mover fans, and building automation systems in their 50ft x 27ft booth. Attendance set a record at over 60,000 visitors from more than 144 countries. "Delta's Industrial Automation, Building Automation and Ventilation businesses gain continued market insight and opportunity for growth at AHR", said M.S. Huang, President Delta Americas. Visitors and media continue to show great interest in the Delta products as our brand continues to grow in the HVAC industry.

Visitors showed high interests in Delta EnergyOn-Line system at AHR 2016

Delta completes first proprietary solar plant in Ako City, Japan

Text by DEJ

Delta's first proprietary large-scale solar plant, Delta Ako Energy Park, was completed and put in service today. This power plant is located in a mountainous area of Ako City in Hyogo, Japan. The new plant is equipped with a capacity of 4.6MW and takes up an area of 96,000m2. One of its main features is a distributed power generation system built with medium-size solar inverters in response to the irregular terrain and to improve the overall power generation efficiency. This is the largest distributed solar power plant connecting to an extra-high voltage (33,000V) grid in Japan. The plant is expected to generate approximately 4,900,000kWh per year, which is equivalent to the electricity consumed by 930 local households annually. According to the Renewable Energy Special Treatment Act of Japan, the power generated by the Delta Ako Energy Park will be sold entirely to the power company and it has helped create a new business model for Delta.

The bird's eye view photo of Delta Ako Energy Park

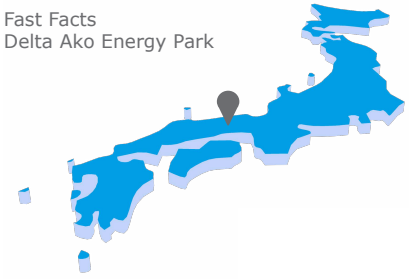
The Park uses 185 units of Delta's RPI-M series PV inverters which feature strong enclosure to withstand adverse weather conditions.

Mr. Mark Ko, vice chairman of Delta Electronics, Inc., said that the completion of the Delta Ako Energy Park is a milestone for Delta's active focus on renewable energy, providing clean energy to help create sustainability for the environment and cities. Mr. CH Ko, Executive Director of Delta Electronics (Japan), highlighted that the Delta Ako Energy Park demonstrates Delta's capabilities in integrating different technologies for the realization of distributed solar PV systems. Its innovation lies in using multiple string PV inverters and connecting to 33,000 volts high voltage grid, which could also comply with local undulating terrain with maximum yields. Delta solves the local irregular terrain challenge while providing an ideal solution to deliver the best power generation efficiency that suits the high voltage standards and the strict conditions for power plant construction in Japan through the integration of its own technologies. This achievement reflects Delta's commitment to environmental protection by enhancing the reach of renewable energy".

Delta management team visits Ako Energy Park.

The Delta Ako Energy Park uses 17,256 solar cell modules and 185 units of Delta's RPI-M series PV inverters which feature strong enclosure to withstand adverse weather conditions. The entire system includes 175 sets of 20kW Delta RPI-M20A and 10 sets of Delta 50kW RPI-M50A high-efficiency inverters that construct a distributed solar power system according to the irregular terrain of the park. This simple system design overcomes the complexity of various module installation angles. When compared to a general large-scale centralized solar power system, a distributed system has no large-scale installation for big inverters and storage facility. The power source can also be dispersed and converted to effectively improve power generation efficiency, to reduce transformer losses from inverter failure, to reduce system maintenance costs, and to provide the most cost-effective solution to the power plant industry.

Fast Facts
Delta Ako Energy Park



- Owner: Delta Electronics (Japan)
- Location: Ako City, Hyogo, Japan
- Total area: Approximately 96,000 m2
- Power facility area: 63,232 m2
- Power output: 4,000kW
- Grid-connect voltage: 33,000V(over 6,600V is defined as extra-high voltage in Japan)
- Equipment scale: Solar cell modules 4,572.84kW (265Wp/pc × 17,256 pcs), solar inverters 4,000kW (20kW × 175units, 50kW × 10 units)
- Expected annual electricity capacity: Approximately 4,900,000kWh, equivalent to the annual electricity consumption of 930 households)

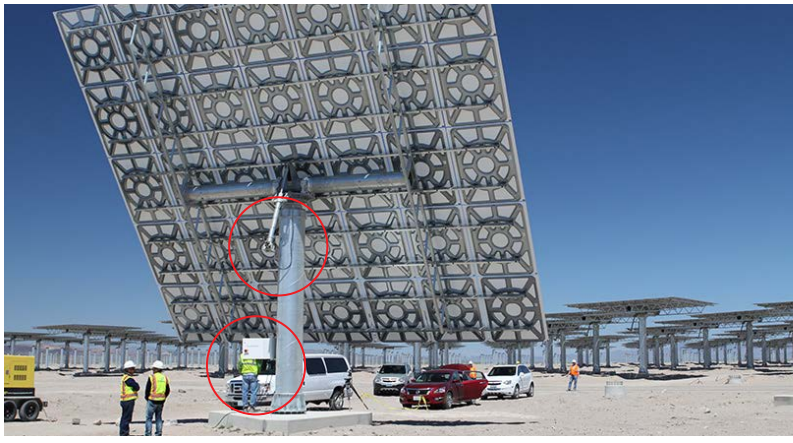
Delta IA's heliostat control for the world's largest concentrating solar plant with energy storage

Text by Joseph Oberle / DPC

The positioning and tracking solution of Crescent Dunes was developed by Delta IA team.

SolarReserve's 110 megawatt Crescent Dunes Solar Energy Project located in Nevada is the world's first utility-scale concentrating solar power plant with integrated molten salt energy storage. It uses 10,347 tracking mirrors, called heliostats, controlled by a positioning and tracking solution developed by Delta's Industrial Automation team, to focus the sun's energy onto a receiver atop a 640 foot tower to directly heat molten salt and then store it, so electricity can be produced day and night – completely with the sun's energy and utilizing no fossil fuels. Electricity is reliably delivered on-demand, much like a coal, oil, natural gas or nuclear power plant, except with zero emissions, zero hazardous waste and low water use. Crescent Dunes will deliver more than 500,000 megawatt-hours of electricity per year, twice the output of a similar sized photovoltaic solar project without storage. The state of Nevada's largest electric utility, NV Energy, will purchase 100 percent of the electricity generated by the Crescent Dunes project under a 25-year power purchase agreement and is expected to dispatch the project to generate solar generated electricity until 12 midnight in order to meet its peak energy demand periods.

The Delta Industrial Automation team worked closely with SolarReserve over a six year period to develop, install, troubleshoot, and commission the Delta heliostat tracking system. "Delta's solar tracking solution offers industry leading performance and pointing accuracy, while using less energy to position the heliostats," said Tim Connor, SolarReserve's Vice President of engineering and technology. "Our team worked closely with Delta engineering to develop advanced tracking technology that helps boost overall plant performance."



Delta employees worked on heliostat controller (circled control & servo motors)

The SolarReserve Crescent Dunes site is located in Nevada's Great Basin dessert over 200 miles from any major city with temperature lows of 20°F in the winter to over 90°F in the summer. Dust devils and sand storms were a common occurrence for the Delta team when working on the site. The IA team shipped 100% of the heliostat controls to the Crescent dunes site for assembly in a building constructed specifically to build the 10,347 heliostats on location. This process took over one year to complete. Several technical issues where quickly resolved by the joint Delta, Commercial, Engineering and Manufacturing team, who put in long hours on site to assure customer satisfaction.

The project began in 2009, with total time from 1st quotation to winning the project of 32 months, time from 1st engineering to production of 42 months, and total time to complete installation of 20 months. The Crescent Dunes site went live for test and system debug in October 2015 and is expected to go fully on line in February or March of 2016.

Delta showcases energy storage system and full range of RPI-series string inverters at Solar Energy UK 2015

Text by Eric Thorsrud / EMEA

Customers showed high interests in Delta's energy storage system and solar inverter products at Solar Energy UK.

For the first time, Delta exhibited at the Solar Energy UK show from October 13-15 in Birmingham. 4,600 visitors and 200 exhibitors gathered at the National Exhibition Centre (NEC) for the largest solar show in the UK.

Delta showed its full range of solar inverters from the Nano 260 micro inverter to single phase residential, and up to three phase large commercial models. The products that received the most attention in the Delta stand were the RPI M50A, a 50 kVA three-phase inverter with excellent power density to size ratio, and the DC-coupled Hybrid E5 storage system featuring a 5 kVA hybrid inverter paired with 8.1 kWh Li-ion battery and included power meter and smart monitor. Over 132 leads were collected during the three-day event. The Solar Energy UK helped show Delta's presence in the UK and had a positive contribution to the SPE (Solar Power Europe) sales revenues in the country due to new and expanded business coming from the event.

The UK will be the largest PV market in Europe in 2015 with over 3.2GW forecasted to be installed. The UK government will cut the solar subsidies for new PV plants from 2016 which will have a dampening effect on solar business in the region but the UK PV market is expected to remain one of the largest in Europe (no. 3) in 2016.

Abandoned buildings in Lynow, Germany, transformed into 1.56 MW PV plant featuring Delta M50A inverters

Text by Eric Thorsrud / EMEA

On August 31, 2015 at the site of a former pre-military training center, a new 1.56 MWp PV plant was commemorated with the Mayor of Nuthe-Urstromtal in attendance.

The site was first used until 1989 as a center for training young people in the former GDR. In the 90s the buildings were abandoned and fell into disuse, eventually becoming a site for illegal dumping and an eyesore for the area.

The local council for Nuthe-Urstromtal decided to do something about it and created a plan to transform the abandoned buildings into a PV plant. Ka-Energy Solutions GmbH, was selected as an investor and EPC for the PV project, and would infuse 1.7 million Euros in the solar park.

An environmental study carried out before construction concluded that protected bat species at the site must be considered. It was determined to leave one building at the site with bat boxes inside and a long narrow brick corridor, partially buried underground, was constructed on the grounds to provide protected bat roosting space.

6,000 solar modules and 30 Delta RPI M50A inverters were installed in the system. The Delta inverters were chosen by Ka-Energy Solutions due to their robust and reliable design and their high peak efficiency of 98.6% to provide high yields.

The solar park is expected to reduce 1,400 tons of carbon dioxide emissions and provide almost 1,516 million kilowatt hours of environmentally friendly solar power annually to around 400 households.

The project not only resulted in the clean-up of a neglected and contaminated locale without destroying local bat habitat but provides a source of clean renewable energy for several local communities. It gives proof that large PV projects can be responsibly planned with minimal impact on local vegetation and habitats.

Delta turned an abandoned building into 1.56MW PV plant featuring M50A inverters.

Delta Amplon series UPS protects Comstar-UTs base stations in Russia

Text by MCISBU

Delta UPSs have been successfully implemented at the base stations of Comstar-United Telesystems, the leading telecommunications provider in Russia and the CIS, along with external battery packs for this project.

"We are happy with our choice of the Delta UPS system," said Alexander Chechko, sales manager in the MTS key account division of NVision Group, one of the largest suppliers of unique solutions and services in the Russian information technology market. "First of all, Delta UPS solutions fully met our needs. And second, Delta Electronics and its official distributor met our strict deadlines, which is why we plan to work with Delta Electronics for future projects."

The Amplon RT 5-10kVA and GAIA1-3kVA are true on-line, double-conversion UPSs designed in a rack or tower configuration, and are recommended for servers, VoIP, telecommunications and networking. The Amplon RT series with an LCD display has a 1+1 parallel redundancy function to provide higher reliability. Optional external battery pack can be added to fulfill longer backup time for mission critical applications.

Delta Electronics offered required technical specifications, the best value for investment, and quick delivery options, which were the key success factors for this project. The customer also intends to continue cooperation with Delta Electronics and its distributor for future equipment upgrades.

Delta UPS installed at Zenit Arena Stadium in St. Petersburg

Text by MCISBU

Delta succeeded in the completion of the installation of UPS GAIA and RT Series at Zenit Arena Stadium in St. Petersburg, Russia. The project was implemented in cooperation with Delta's partner, Spectr RS LLC.

The stadium's management considered offers from key UPS market players. The final decision was made in favour of Delta, because the products offered by Delta were fully compliant with all the required technical specifications, certified and especially optimized for the set objectives. These solutions were capable of providing reliable protection of all the management systems without any threat of data loss.

As a result, Delta has become the provider of the equipment that ensures safe functioning of the supply lines, communication centers, and databases at Zenit Arena facility, which is currently under construction.

Delta's UPS ensures safe functioning at Zenit Arena facility.

Andrey Saveliev, CEO at Spectr RS LLC, said: "Today, Delta has a solid reputation of a provider of reliable devices, which can be used in the most critical sectors. The company's solutions feature innovative compact architecture, high electrical power factor and low input current harmonic distortion. I would also like to note that Delta responded to the request quickly, offered technically and economically sound solutions, and delivered their products on time. All this supports our relationship and builds up our willingness to develop partnership with this company in future."

Delta builds an intelligent traffic monitoring screen on Shenzhen – Luoding Expressway

Text by Delta Greentech

As the Scheme for National Highway Network announced by China in 2013 is being carried out in-depth un-interrupted, the construction of national expressways is also promoted in the same manner, providing a new market space for intelligent expressway management.

Shenzhen–Luoding Expressway uses Delta large screen display system for traffic management.

As a part of the national expressway network, Shenzhen – Luoding Expressway also has the integrated management platform in place for the intelligent expressway during the construction process and has a complete set of road video monitoring system built along the section from Jiangmen to Luoding. The large screen display system is mainly composed of a 55" 3×8 LCD display unit, a VisionCON image mosaic controller, and the VisionDWNS system control management software for large screens. The large display screen in the traffic monitoring and command center can display visual, complete, accurate, and clear traffic information for the section from Jiangmen to Luoding, and the highway management personnel can also flexibly control various motion videos, computer / workstation graphic information, and application system graph that are displayed randomly on the screen, so as to achieve a real-time supervision on traffic condition of the expressway and respond to traffic accidents in a timely manner, thus ensuring a smooth traffic.

Delta releases holographic cloud push system to improve traffic control efficiency

Text by Delta Greentech

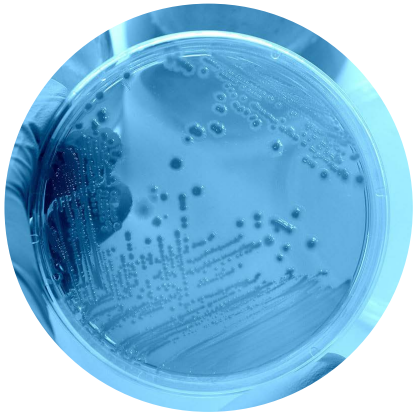
With the increasing demands from modern cities on traffic control, Delta released its holographic cloud push system, which helps the traffic management department to push first-hand field video data obtained from actual operation through the mobile phone to police officers or staff nearby, so as to control the traffic and work out efficient and sound emergency solutions within the shortest amount of time.

Delta holographic cloud push system is able to deliver real time traffic conditions to the managers.

The holographic cloud push system is composed of two subsystems, namely the video scheduling management platform in the command scheduling hall and the mobile client. The video scheduling management platform is characterized by video surveillance, video editing, video push, state monitoring and so on, which can monitor status and handling information of the field traffic and help the scheduling commander get familiar with the accident process rapidly and make a quick judgment for dealing with the traffic. The mobile client utilizes the smart phones to receive on-site video and information. The immediacy, safety and high efficiency of Delta holographic cloud push system can still allow rapid and accurate video scheduling management while coping with a large amount of traffic video information. In addition to municipal traffic management and traffic police commanding, it can be also applied in rail transit, energy, chemical engineering and other industries.

Delta automation solution opens up a new field for laboratory food Detection

Text by Delta Greentech



Delta IA opened a new field of food safety inspection, providing automation control solutions for food inspection institution.

Delta recently introduced a set of integrated professional automation solutions for food safety detection, allowing its automation products to open up a new field in laboratory automation and making them highly praised by customers.

With food safety incidents on the rise, the attention to food safety has been fully recognized by the society and all food manufacturers, catering enterprises and school cafeterias have also reinforced the detection of chemical agents in food. As various chemical reagents shall be added during the detection process, each ventilation hood in the chemical laboratory shall be able to adjust the quantity of ventilation (wind speed), temperature and remote opening automatically, so as to ensure the safety of detectors and culture these detection materials under constant temperature and humidity.

With the new trend of development in food safety, Delta is offering automation control solutions for food safety inspection institutes and making the functions of adjustable air volume, constant temperature and automatic opening available to the laboratories. Meanwhile, Delta engineers constantly communicate with professional detection engineers from those inspection institutes to learn about essential demands for the detection process and combine with Delta's touch screens, output PLC, data acquisition module and other classical products, as well as products of innovative technology to design a set of integrated solutions, thus serving as an example for the application of automation solutions in the new fields.

Delta Successfully Develops an Integrated Electromechanical Control Solution for Wire Stranding Machines

Text by Delta Greentech

Recently, Delta successfully developed an integrated electromechanical control solution for fully automated high quality wire stranding machines, key equipment in rubber hose manufacturing. The solution successfully replaced mechanical mechanisms found in traditional wire stranding machines as it increased the braiding quality at high, constant linear velocities.

Delta IA solutions successfully applied in wire stranding machines, providing precise control capability.

Rubber hose is an essential rubber product in the national economy; it is commonly used in the machinery, automotive, aviation, and maritime domains. Wire stranding machines are key equipment for producing wire-reinforced rubber hydraulic hoses, which are primarily used to provide spools for steel wire weaving machines. Stranding machines primarily consist of tension control and winding control systems. In order to meet customer demands, Delta focused its efforts on developing solutions for the winding control system.

Delta's integrated electromechanical control solution for fully automated wire stranding machines is currently in operation. The solution proved to provide highly precise controls and easy operations with an increased working efficiency; it has earned wide recognition and praise from customers. The market demand for steel wire braided rubber hose is constantly rising. The successful application of Delta's electromechanical control solution for wire stranding machines provides important lessons and word-of-mouth marketing in the further innovation and development for this type of industrial equipment.

Delta UPS selected by major electronics manufacturer in Guangdong

Text by DGC

Recently, the reputable Delta UltrOn NT series industrial UPS has received high praises among the manufacturing industry once again. The UPS series was successfully implemented by Truly Opto-electronics Ltd., a major electronics manufacturer, to provide reliable power protection for their high performance production line that permits no less than 10-min. delays. The successful cooperation between Delta and Truly once again demonstrated the advantages and superior performance of Delta UPS products in the manufacturing industry.

The Delta UltrOn NT series UPS adopts an advanced IGBT high-frequency switching sPWM design, providing the UPS system with advantages including quality power supply, high efficiency, low heat loss, low noise, reduced size, and extended lifetime. Moreover, a modular design reduces average maintenance time (MTTR), as well as its digitized design through microprocessors simplifies the analog circuitry and substantially reduces system components, thus improving the safety and reliability of the UltrOn NT series UPS systems.

Truly Opto-electronics Ltd. selected Delta UPS to provide safe and high-efficient protection for its production line.

Frontier container terminals in Eastern China implementing Delta's Energy Regenerating Solution

Text by DGC

Amidst the upcoming national energy conservation and emission reduction policies, as well as the increasing energy conservation business requirements, container terminals located at the Yangzhe River Delta in eastern China have implemented energy feedback solutions on rubber tyred gantry (RTG) cranes. RTG cranes are loaded with gravitational potential energy. Electrical energy generated in traditional motors is utilized inefficiently. Substantial energy is wasted in the heat dissipation of external resistors during the conversion from electrical to thermal energy.

Delta's energy feedback solution features energy feedback devices between the grid and inverters of RTG cranes; it provides energy to the inverters and motors when lifting containers. When containers are lowered and the motors generate power, the device can invert the recycled energy back to AC and return it to the grid, thereby conserving energy. Multiple tests showed that RTG cranes implemented with Delta's energy feedback solution saved more than 30% in energy consumption. Additionally, the solution also included the IGBT rectifier technology, which eliminates the harmonic interference of inverters on power distribution systems to increase the system's power factors and reduce its harmonic power and reactive power.

Frontier container terminals in Eastern China implementing Delta's Energy Regenerating Solution to increase the re-use rate of energy.

2015 Delta video products exhibited in Chengdu and Taiyuan

Text by Delta Greentech

Guests are conducting exchanges with experts in video technology from Delta Greentech and are getting their first-hand experience on the exquisite details of Delta's DLP large-screen solutions.

The National Exhibition of Delta Video Products arrived in succession in Chengdu and Taiyuan, two famous historical cities in China. The Delta exhibited its world-leading products and solutions for DLP, small-spacing LED, image display control, interactive decision-making solution, intelligent surveillance, visualized operation and management, and other fields by integrating more intelligent and powerful control systems and diversified display units and focusing on solutions for industrial application.

Zhu Li, Inspector General of the Video System Product Division in the Delta Greentech, says that the field of video display and control is also developing rapidly, with the growing tendency of "Internet +" and "Intelligence" and the large-screen display system moving forward to meet the demands for more pictures and higher resolution, while the image control system shall be subject to more diversified signal sources and massive data processing capability and achieve real-time interaction between the mobile end and control center via an instant and efficient cloud system. Delta integrated world's leading video display and control technologies and built a complete set of intelligent management and visualization solutions through instant acquisition of bottom data to terminal Ultra HD display and Cloud Push service. The national exhibition is held in a hope of making the latest video display and control technologies available by facilitating face-to-face communication with customers.

Delta showcases Breez ventilation system at IBS 2016

Text by Mike Gazzano / DPC

Delta attended the 2016 International Builders show in Las Vegas, Nevada in January. Delta displayed the Breez ventilation systems. DeltaBreez is the only bathroom ventilation fans' brand that delivers a powerful combination of performance in every fan; quietness in every fan; state-of-the-art DC motor technology in every fan; and affordability.

IBS 2016 brought together the industry's most important global manufacturers and suppliers and highlighted the latest products, materials and technologies involved in all types of buildings. Attendance set a record at 50,000 visitors from more than 100 countries. "Delta's presence at IBS grows each year as we continue develop more products for the building industry", said M.S. Huang, President Delta Americas. Visitors and media continue to show great interest in the Delta products as our brand continues to grow in this industry, and Delta Breez continues to introduce new bathroom ventilation products that bring innovation, excitement, and energy savings to the bathroom ventilation fan category.

Delta showcased full series of Breez ventilation at IBS 2016.

Delta fan gained much attention from marketing promotion

Text by Delta Marketing China

One of Delta's core marketing strategies is to build an industry PR, thus helping to move promotion activities forward. To promote the series of ventilation fans at a grander scale, Delta Operations China took a part in the 4th quarter GDADRI conference held in Guangzhou and the 6th National Architecture and Equipment Exchange Meeting, and the 1st Sprung Roof and Assembly of Electrical Components Industry Exposition that took place in Zhejiang Province this past November (2015).

The Delta's ventilation fans are manufactured with the switching power supply independently developed by Delta and DC brushless motor control technology. This is best noted for its noiselessness, lower energy consumption, and multi—barriers design that guarantees safety and was highly applauded and recognized by all participants in the meeting. The super-thin sprung roof and assembly of electrical components module (as the thinnest at 0.1 cm) was widely praised by the participants, most of whom were willing to give this a try in the future.

This highly effective fan is designed with two types: Centrifugal and axial type. With the EC technology, we provide our customers with the optimal option for reducing energy consumption. Additionally, a host of advantages such as large-scale operating voltage, stable operating speed, multi—barriers design that guarantees safety, an easy speed switching and control design, low vibration, and low noise, highly impressed the guests at 6th National Architecture and Equipment Exchange Meeting. Many of them considered to choose this product for their ventilation or air-conditioning facility in buildings.

1.The Delta fan won close attention in the 4th quarter GDADRI conference

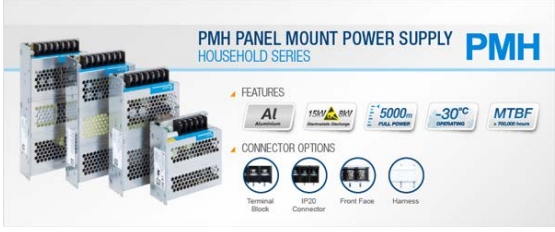
2.The Delta ventilation fan and the sprung roof and assembly of electrical components module made a debut in the 1st Sprung Roof and Assembly of Electrical Components Industry Exposition

3.The Delta staff gave an introduction on the ventilation fan in the Architecture and Equipment Exchange Meeting

Delta's PMH panel mount power supply series operating temperature extends to -30°C

Text by DET

Delta has extended the PMH panel mount power supply series operating temperature to-30°C; this series is specifically designed for household electrical appliances with safety approvals. This applies to all the models within the series with 24V output in power range of 50W, 100W, 150W and 200W. The highly efficient convection cooling construction can operate between -30°C to +70°C with only slight de-rating which is above industrial norm for similar products. The excellent design also provides full operating power from 20°C to +50°C at 5000m (16400 ft.) altitude for 50W to 150W models and from -20°C to +45°C for 200W model. Other features including built-in active PFC for 150W and 200W models and Galvanic Isolation > 4.2KVac between Input to Output.



Delta PMH panel mount power supply is able to operate between -30°C to +70°C

Delta awarded in diversified arena

Text by Corporate Communications/ DGC / MCISBU

The case study of "Delta Merges with Eltek" was honored with the Taiwan M&A and Private Equity Council (MAPECT) award for both Annual Best Case and Cross Nation Merger Case on 8th December, 2015. The jury commented that the Delta and Eltek merger case shows exceptional synergy and a positive influence on market expansion.

Delta Electronics Vice Chairman Mark Ko attended the award ceremony and pointed out that the three top global telecommunications power supply leaders include Delta and Eltek With the global market stable for several years, it has been difficult to expand the market. The Eltek acquisition marks a significant step for Delta and brings a unique synergy in leveraging both company's resources. M&A is one of Delta's growth strategies and the company will continue on this path. Moreover, the electronics industry in Taiwan is facing a critical point in its development and acquisitions can offer a good opportunity to connect with the world. Even though M&A cases may result in crises, there also exists business opportunities and future development.

On November 29, good news came from the 2015 Chinese Automation Congress held in Wuhan that Delta has won the 2015 Chinese Automation Business Innovation Award. This award was established to recognize innovators among China's automation domain with significant industrialization achievements and advanced innovative mechanisms. Delta places heavy emphasis on innovative R&D operations that serve as the crucial foundation and driving force for constant development. As of 2014, Delta has applied for nearly 5,000 patents; the performance of many of its products are recognized as industry leaders.

1.Senior Advisors to the President Mr. Sean Chen (right 2nd) presents the award to Delta Electronics Vice Chairman Mark Ko (right 3rd).

2.Vice chairman of the Chinese Association of Automation, Prof. Li Shaoyuan (first from the right), presenting the certificate to the winner; Delta's Wuhan Electrical and Mechanical Services Department Manager, Xie Peng, on the award stage

Rock Huang, General Manager of the South China and Dongguan Energy-saving Service Department

Establishing stronger local roots via **new energy-saving projects:**

special interview with Rock Huang, General Manager of South China and Dongguan Energy-saving Service Department

Text by Brand Management

The Paris Agreement was ratified late last year, setting a new milestone in the world's ongoing fight against climate change. The signatory nations have agreed on targets and policies, and in the aftermath of the Paris Agreement, many companies are eager to take part in the energy management market. Naturally, in this momentous chapter of history, Delta is playing a key role. We traveled to Paris, bringing with us a decade of valuable experience in green buildings and building energy management technology. At Grand Palais, many people asked whether Delta could provide energy-saving services. In fact, the Dongguan plant began implementing an energy-saving program of its own as early as a decade ago, and these techniques have since evolved into an entirely new business model for Delta. In this issue of Brand People, we are featuring a special interview with Rock Huang, General Manager of the South China and Dongguan Energy-saving Service Department, who shares how he successfully converted the energy-saving experience implemented at the Dongguan plant into a whole new energy-saving business model that has launched the Delta brand to new heights.

While the topic of energy savings and carbon reduction has gained an increasing amount of attention in recent years, it is actually an area Delta began focusing on long ago.

The Delta Energy Online system is used to monitor energy use throughout the entire campus of a local elementary school for children of overseas Taiwanese.it.

Entering the energy-savings business at the right time: Establishing Dongguan EMC

At the outset of the interview, Rock quickly highlighted the progress made under his watch: "The Dongguan plant initiated energy savings programs as early as 2004, led by Mr. Ping Cheng. At first, we started these programs because they helped cut costs. In addition, we wanted to lower production costs by upgrading our technology, which of course also ties in with Delta's mission."

Dongguan started on their energy-saving transformation with electronic ballasts, and searched tirelessly for opportunities to improve. This gradually extended to production and testing, and after several years of concerted effort, a substantial decline in electricity consumption was finally achieved. This remarkable progress in energy saving was admired by many officials who visited the plant. They encouraged us to promote our energy-saving technology, which would in turn benefit other companies. That was in 2012, just as China was becoming energy-saving conscious, and as Delta was becoming a solutions provider, and so Dongguan EMC was established.

Rock recalls that initially as he searched for the perfect team, he felt a common goal was extremely important. "There were a lot of baked products in the factory, and the operating surface of the oven responsible for the burn-in test was always very hot. Indoor air conditioning had to be set to maximum power, so Mr. Cheng asked us to create an oven with the surface the same temperature as the air." All the engineers in the team thought it was an impossible mission, but after several experiments and brainstorming sessions, they really did invent an oven with a surface that wasn't hot. This was a source of great inspiration for everyone and it also benefited the manufacturer.

Becoming the first company in China to obtain ISO50001 certification for energy-saving services is a badge of honor

At the time, Dongguan was selected as one of the demo cities for carbon reduction. All companies that consumed large amounts of energy had to be surveyed by the city council. All energy services were required to obtain record units. "Delta was the first company in China to become ISO50001-certified as a result of the company's longstanding experience and commitment to energy management. As a result, EMC, during its first year in operation, was contracted for the Dongguan Shijie government's LED reconstruction project, winning at the national provincial and municipal government level." Rock is proud of this achievement and says that this successful venture paved the way for many other business opportunities ahead.

The energy savings project for Primax was another successful example. The Dongguan EMC team used the Delta Energy Online system to make an energy-saving diagnosis for the client, which included comparing the cost savings before and after the energy-saving measures were implemented. The team improved Primax's lighting and air conditioning systems according to the diagnosis and lowered annual electricity costs by 20 percent, and received high praise from their client.

Delta Electronics is the first company in China to become ISO-ISO50001 certified. Pictured here is a copy of the certificate.

Achieving large energy savings boosts the bottom line directly

After continuously adapting energy-saving procedures, the Dongguan plant's electricity consumption rates dipped greatly, which drew attention from all sides. "The mayor of Dongguan Shijie came to ask me if we were doing badly in sales, since our electricity consumption had dropped so much," Rock remembered with a smile. Before energy saving became mainstream, the general consensus was that electricity consumption correlated positively to sales performance, and that less electricity consumption meant that production levels were dropping. Rock's reply to the mayor, however, was that not only were their sales performance not dropping, it was doing better than ever!

Due to Dongguan plant's success, other related units began to change their long-held beliefs regarding electricity consumption and production, and began instructing their own factories to adopt similar energy-saving procedures. Dongguan EMC's energy-saving services were gradually gaining momentum.

Locally-based team holds key to unlocking massive potential of energy-saving projects

Dongguan EMC provides guidance to its customer, Longfa Shoe Factory, on the usage of solar panels.

Buildings account for a third of the world's total energy consumption. Energy-efficient buildings, which lower the consumption of energy by renovating the way buildings are constructed, are a highly efficient solution. The highly regarded UN Climate Conference COP21 recently concluded, and the Delta Electronics Foundation, which has always been active in climate and environmental issues, developed a partnership with Delta's Brand Management Office. Together they brought Delta's decade of experience in green buildings and energy-efficient building technology to the Grand Palais. At the exhibition and through video, they showcased Delta's carbon-reducing and energy-saving technology used in energy-efficient buildings, and won high praise from all.

Rock also agreed that energy-efficient building has changed the landscape of energy saving. "Three years ago China began its 12th Five-Year plan, one of which is colloquially called the 'Golden Sun' plan. This plan encourages the use of solar power, and both the Dongguan and Wujiang factories applied for it simultaneously. Apart from providing electricity, solar panels are also able to deflect rays from the sun, which leads to lower usage of air conditioning and lower electricity consumption. In addition, we also receive a 50 percent subsidy." He went on to add, "The Dongguan plant has already completely upgraded to LED lighting, which has already saved several million KwH of electricity.

The team carries out an energy-savings survey on behalf of a customer.

The Dongguan EMC team.

Having achieved remarkable success within the company, Rock decided to shift his focus toward the external market. This is when the real challenges began.

"When doing business in China, money and the relationship is often more important than the quality of your products and technology," he said with sincerity. Energy-saving services are becoming increasingly mainstream in China. Now there are official policies in place, and Dongguan has made many outstanding achievements. Even local high-ranking officials are encouraging Delta to further expand into the energy-savings sector. But when it comes to cost-oriented clients, there are still some major hurdles.

"Delta is meticulous when it comes to quality assurance and price policies, so we need to focus at the client level," said Rock, who is tirelessly expanding his local client network through government channels, the Taiwanese Business Association, and manufacturers. Most of the successful cases are from large-scale companies. Delta has established a reputation in the energy-saving sector to the point that clients let their guard down when they hear the name "Delta" and often even agree to negotiate on more flexible terms.

A team committed to precision with the full-backing of the Delta brand

When it comes to discussing the team behind the success of EMC, Rock was slightly more reserved. "There are only ten of us, including the manager," he said. "We use elite policies that foster business with versatile field application engineers (FAE), and reserve technical support to leverage the business groups and business units (BGBU)." Manufacturers are Delta's choice of subjects when it comes to testing new products. After actual operation and feedback, the BGBU can redesign the products more to the client's specifications. The next step is to recommend the products to the client, which adds credibility to the EMC team when advertising and selling their products.

After the interview Rock said that Delta has established a firm base and a good reputation in the energy-saving sector in China; which will be an immense help as the EMC expands even further in the energy sector. He has developed a unique business model: Have a good local network, do not compromise product quality, and keep in mind that brand communication is essential.

After a long and arduous series of meetings, the signatories finally adopted the Paris Agreement in December 2015 to thunderous applause.

From Kyoto to Paris: **The Paris Agreement**

Text By Wen-Kai Hsieh, Delta Electronics Foundation

After a 14-day marathon session, French foreign minister and president of the COP21 Laurent Fabius struck the gavel, finally signifying the adoption of the Paris Agreement. The new agreement will replace the Kyoto Protocol, passed in 1997, to become the latest legally-binding agreement on global greenhouse gas reduction which obligates all signatories to strive to prevent global warming.

Kyoto Protocol criticized for 'lacking teeth'

Before the establishment of the Paris Agreement, the United Nations Framework Convention on Climate Change and the Kyoto Protocol were undoubtedly the most prominent environmental accords. Climate change may not be the most urgent issue facing humanity — many other environmental problems are just as pressing. However, the issue of carbon emissions is inextricably tied to energy use and energy depletion, which in turn has an impact on economic development, human rights, and intergenerational justice as well as funding requirements and the sharing of responsibilities among wealthy countries and relatively poorer nations.

As the issue of climate change is increasingly gaining attention, UN member states passed the Framework Convention on Climate Change on the eve of the first Earth Summit in 1992. However, since the accord was devoid of concrete carbon-reduction measures as well as binding power, COP members decided to bolster the action aspects for mitigating climate change when they discussed the Kyoto Protocol. The Kyoto Protocol, based on the principle of "common but differentiated responsibility", divided the world into two camps: developed countries and developing nations. The former was obligated to assume the historic responsibility for greenhouse gases emitted into the atmosphere in the past. These countries were required to set their own objectives to proactively reduce the emissions of greenhouse gases. The Protocol also designed several mechanisms for signatories to implement carbon-reducing initiatives in other countries to count as part of their own carbon-reduction outcome, including "carbon pricing", a term which is steadily gaining notoriety. In addition to reducing carbon emissions, the Kyoto Protocol also aimed to establish adaptive measures needed to meet threats associated with extreme weather events.

The Kyoto Protocol, adopted in 1997, did not actually come into force until the total number of signing countries finally reached the necessary threshold in 2005. To a certain degree, it did have some binding power, especially when it comes to galvanizing the energy and climate policies of some major countries, as well as stimulating the growth of renewable energy and international collaboration. However, as a top two country for greenhouse gas emissions in the world, the U.S. failed to ratify it due to domestic political differences. In addition, major carbon emitters such as China and India were not constrained, greatly compromising the effective binding power of the Kyoto Protocol. With the Kyoto Protocol about to expire, signatories aggressively discussed a new agreement to replace it in the near future; this formed the background of the adoption of the Paris Agreement in 2015.

A group of protestors organized a flash mob outside the conference venue to urge the COP21 to quickly reach an agreement. Source: UNFCCC's Flickr

In wake of the terrorist attacks in Paris, the French government stepped up security measures throughout the city.

The site of the Climate Summit in Paris, also known as the "COP21".

Paris Agreement Stresses 'Spirit of Cooperation' to Collectively Cope with Climate Change

One of the primary aims of the Paris Agreement is to keep the global temperature rise this century to well below 2 degrees Celsius— comparable to pre-Industrial levels—as well as to strive to further reduce the target to below 1.5 degrees Celsius with further efforts. This time around, both developed nations and developing countries will have to do their part to reduce carbon emissions, albeit based on "the principle of equity and common but differentiated responsibilities and respective capabilities, in light of different national circumstances." Each and every country must provide and register their respective "Nationally Determined Contributions", or NDC, with the UNFCCC Secretariat. These documents will be deemed as their national commitments for carbon reduction, in essence articulating each country's carbon-reducing measures, clearly laid-out reduction targets, and factual estimates of their carbon emissions and expected carbon reduction. To ensure that autonomous carbon reduction is not "all talk and no action", this document will be updated every five years to review the implementation of each country's commitments to greenhouse gas reduction, as only progressive advances in both goals and measures are allowed, with no backtracking tolerated.

On the eve of COP21 in Paris, the United Nations compiled the collected NDCs submitted previously by nations and found that global temperatures will still rise by 2.7 degrees Celsius based on the carbon-reduction commitments provided by the nations. This, however, did not represent failure; it was the start of a collective challenge. All countries agreed to discuss timetables, negotiate a period "global stocktake", and reinforce implementation mechanisms together in the first meeting for the Paris Agreement in 2016. Despite that carbon reduction targets will be in line with different national circumstances, the special compliance mechanisms that have been set up exemplify the spirit of "being in the same boat".

The idea of international collaboration will be carried out and hinged on the three principal axes of fund provision, technology transfer, and capacity building. Developed countries and capable developing countries must collectively provide annual funds to the amount of USD 100 billion until 2025 for the development and strengthening of low carbon and climate resilience. Each nation is required to submit a report on international collaboration once every two years to allow developing nations to estimate expected levels of financial resources that may be made available to them, in addition to announcing and sharing information.

In the Post-Paris Accord Era, each person can do their part for a sustainable planet

The Paris Agreement is also an environmental accord with new thinking and ideas. It champions bottom-to-top thinking and respects different capabilities among nations rather than forcing nations to achieve certain amounts of carbon reduction based on pre-set standards. In addition, the agreement stresses the transparency and openness of information, accuracy of data, and continuity of goals. More importantly, owing to continued concern and participation by civil rights organizations over the years, the agreement also adopts mainstream human rights concepts pertaining to indigenous populations, gender issues, labor rights, and intergenerational justice. The agreement also encourages non-state actors, including private organizations, companies, corporations, financial institutions, and local and regional governments, to join forces to combat climate change and help the Earth become more sustainable regardless of how big or small a role they can play. In this vein, Delta continues to aggressively fulfill its role as an international corporate citizen. On the eve of the COP21 conference, Delta was already actively committed to expanding its energy-saving efforts to include factories, buildings, and data centers, and Delta has set a goal to further reduce its overall power consumption by 30% by 2020 as part of its concrete actions to reduce carbon emissions.

The Paris Agreement will be open for ratification in April 2016. It needs to be ratified by at least 55 nations from the UN Framework Convention on Climate Change and account for at least 55% of global emissions. Most countries will need endorsement from congress for ratification. The agreement will drive all nations toward a new economic path of renewable energy and low-carbon development which will in turn spur energy transformation and technology innovation in all areas and help prevent worsening disasters caused by climate change.

Text by Sammy Sun / Corporate Marketing Service

Top 10 Strategic Technology Trends for 2016: At a Glance

Digital business is an overarching theme that covers how the blurring of the physical and virtual worlds is transforming business designs, industries, markets and organizations. Gartner releases its latest top 10 strategic technology trends recently and says "top 10 strategic technology trends will shape digital business opportunities through 2016".

These trends include The Device Mesh, Ambient User Experience, 3D-Printing Materials, Information of Everything, Advanced Machine Learning, Autonomous Agents and Things, Adaptive Security Architecture, Advanced System Architecture, Mesh App and Service Architecture, and Internet of Things Architecture and Platforms.

Technology Innovations Impacting Future of Industrial Automation

Emerging technology trends in ICT, sensors, and electronics, categorized as 'mobility', 'sensorization', 'security', and 'wireless' are envisioned to impact the future of industrial automation. These technology trends will empower the next industrial revolution—comprising 'Industrie 4.0' and 'Smart Factories'.

"Mobility" includes Multi- touch Devices, Cloud Computing, Machine Vision, and Commercial Off The Shelf Devices. "Sensorization" includes Wireless Sensor Networks, Cooperative and Agile Robots, and Smart Sensors. "Security" includes Enterprise Security, Machine Safety, and Control System Security. "Wireless" includes Industrial Networks, Big Data, Advanced Analytics, and Manufacturing Integration. The 4 technology trends are transforming the world by empowering a global phenomenon called 'Internet of Things'. Similarly, in the industrial automation sector, these technologies are expected to bring profound changes in the next 5 years (by 2020).

The World Market for DIN-rail Power Supplies

A DIN-rail is a standardized metal rail widely used to mount industrial components inside equipment racks. Power supplies with DIN-rail packaging are typically mounted in enclosures or cabinets to provide power to components used in industrial processes. These components can include sensors, transmitters/receivers, analyzers, programmable controllers, motors, and communication equipment designed for use in an industrial environment. DIN-rail power supplies are convection-cooled and no cooling fans are needed. In addition, these power supplies can be connected in parallel for higher power applications.

IHS forecasts the total world market for DIN-rail power supplies worth $494 million in 2014 and $725.8 million in 2019 at a CAGR of 8.0% from 2014 to 2019. Total shipments are estimated to have been 8.5 million units in 2014 and to reach 14.6 million units by 2019. Historically, the DIN-rail market has been strongest in EMEA because the standard was driven by European industrial companies. Asia is estimated to have been the second-largest regional market. The Americas, currently the smallest of the major regional markets, is the fastest growing.

Need more market information please connect DeltaINSIGHT

Bruce and Yancey riding the power generating bicycle and squeezing their own energizing fruit juice.

Positive energy juice bar

Text: Michael Hsieh / DEF

There is a music station by the side of the public area during COP21 period. The electricity for the speakers and the DJ's turntable is generated from a few solar panels and by the public riding the bicycle. These musicians, who bring vitality to the people, formed Solar Sound System in 1999. They created the mobile solar car and bicycle power generator, and go round the world to promote sustainable green energy besides bringing joy to the public through their performance. In 2013, they came to Taiwan's Spring Scream and worked with Asia musicians, playing music on the lawn of Eluanbi with a solar panel and a turntable and speaker converted from two fishing ice buckets.

By the side of the COP21 sound system, they even set up a "positive energy juice bar" (Bar à énergie positive), inviting the public to ride on the bicycle and get a squeezed juice for free, which attracted huge crowd every day. The first step is to choose from apple, carrot and beetroot for your juice and then put them into the blender. Next, ride on the bicycle, where it would power up the blender, producing the fresh and delicious fruit juice, giving you energy for the day.

Besides the delicious fruit juice, riding on the bicycle might have helped everybody release a large amount of endorphins, as everyone looks so happy. Yancey had even ridden three times during these few days though it made him sweat after each ride, and Bruce was full of joy after squeezing his own fruit juice under the cheers of the crowd.

A new business **model for Ecocup**

Text by Wim Chang / DEF

In Taiwan, more shops are encouraging customers to bring their own reusable cups, or even provide discount or have point collection program. Besides reusable cup, bringing reusable bowls and pots for takeaway food is normally welcome by eateries in general. But when it comes to global fast food chains, it is not as smooth.

On a Sunday morning, I brought some bowls and pots to a fast food chain to take away breakfast for four. According to past experiences in takeaways, restaurants normally welcome customers in bringing their own utensils as it reduces the cost of disposable utensils. However, when I laid out my bowls on the tabletop, the staff was taken aback, and the supervisor immediately stepped forward to handle the situation.

"Sir, only our counter staffs handle reusable utensil, so they can help you pour your beverage into it."But I only wish to put my food in them instead of using extra paper boxes and paper bags", I clearly explained my requirements to her.

"We understand your requirements, but for the sake of food safety, I suggest you use the utensils we provide." As she has even brought out food safety concern and with more people joining the queue, I could only accept the situation and keep my utensils. I decided to call their customer service hotline when I get home.

In fact, similar situations are not uncommon to me. Just a few years back, when I purchased a cup of coffee at a fast food restaurant at the airport, the store manager was very persistent in not pouring the beverage into my reusable cup. She said it was because she could not measure the volume of the beverage. I have also made the request to a staff from another coffee chain not to pour my coffee into a paper cup before pouring into my reusable cup, as I do not mind having less.

But in 2016, it is very common for customers to bring their reusable cups to beverage stores in Taiwan. Environmental Protection Administration has even imposed a fine of NTD 300,000 according to Article 51 of the Waste Disposal Act on stores that do not put up recycling bins or have unclear signs.

Besides morally hoping people to bring their reusable cups, providing discount incentives economically, and making it mandatory to recycle "single-use cup" by law, are there other means to drastically reduce 1.5 billion of beverage cups annually?

During COP21 period, the mulled wine sellers on the streets of Paris provided "ecocups" to consumers, encouraging them to recycle their cups.

A business model adopted by a company called ECOCUP in Europe and North America may serve as a reference for us.

The company produces environmentally friendly reusable cups that can withstand high temperature, and rents them out. Besides the basic rental fees, customers are to put down a high deposit of about NTD 37 for every cup. If the cup is lost, NTD 26 will be deducted from it. However, if the number is large enough, for example 100,000 cups, it is profitable compared to the cost of NTD 2 per disposable cup. Consumers would be willing to return their cups in order to get back their deposits, and incentives can also be given to people who search for things to recycle. When these cups are returned to the factory, they will be cleaned and inspected to be sent for use in the next event.

According to the information on this company's website, using this business model could significantly reduce more than 80% of waste from large scale events. Examples are the mulled wine sellers commonly seen on the streets of Paris, and the plastic cups provided by mobile coffee carts, which encourage consumers to recycle their cups. Of course, if consumers are willing to reuse their cups, there would be no food safety issues, and this model could even be expanded to other utensils.

Regardless if it's allowing the public to bring their own utensils or adopting green innovation practices such as ECOCUP, they are all better measures than bringing home a paper box, two paper bags, three plastic boxes, and one set of plastic fork and knife when you take away a set of breakfast today. However, this requires the awareness of consumers in order to reverse the entire business system.

Colleagues stood in a queue, waiting for a check-up.

Text by DGC

Walking Your Way to a Better Health— Delta's "10,000 Steps a Day" Challenge kicks off for a good start

Exercise improves quality of life so happiness ensues. In order to help reduce stress for the staff and encourage them to make "exercise" a priority of their daily lives, the union of Delta Headquarters in Shanghai and Employee Welfare Committee made a cooperative effort in introducing Delta's "10,000 Steps a Day" Challenge on November 27. This activity comprises a physical examination, a seminar, and a challenge that sets 10,000 steps for a day as a goal. Nearly 200 employees from the headquarters joined this meaningful activity and walked at a brisk pace as a demonstration for pursuit of a healthier living in urban areas.

Physical examination / gaining a better knowledge about yourself &getting rid of sub-health conditions

In the check-up arranged for the morning, the colleagues took turns in getting their weights, body fat at varied parts, blood pressure, and BMI tested. A follow-up test will be arranged for them next March. Those who can lose their weight or get a better report in the abovementioned health indicators will then be named the winners and rewarded with souvenirs.

Seminar / Slimming workouts that are designed for small spaces

That afternoon, a sports nutrition specialist from another town arrived here and introduced how to do exercises amid the small spaces of the office and thus prevent office-related syndromes in the International Conference Hall. He emphasized the importance of making the best use of fragments of time for workouts. He even took out a few Mi bracelets as presents for workers who actively engaged in interactions. The expert demonstrated a series of workouts at small spaces between cubicles. Then, our colleagues would know it was not easy to do these seemingly little workouts, let alone doing it every day. It's true that persistence matters as much as agility.

The expert demonstrated how to do a slimming workout in small spaces. Quite a challenge, eh?

The ladies shows enthusiasm in active participation.

The gentlemen are as enthusiastic as the ladies.

Warming up properly before taking up the challenge of walking 10,000 steps

Three female employees who had finished the 30-minute aerobics were each rewarded with a present.

After the session, staffs were prepared for the most anticipated "10,000 Steps a Day." The early wintry weather was pleasant enough, and the staffs showed high spirits in the basketball court. At the first half of the activity, a coach led them to do boxing aerobics as a warm-up-which must be unforgettable for everyone had the chance to do it. This aerobics consists of boxing, karate, Taekwando, Kungfu (Chinese martial arts), and even some dancing. This continued for half an hour, when everybody energetically flung their arms wide apart and kicked their legs. All had a good sweating, which translates to more calories burning and can improve cardiovascular health while reducing the day-to-day stress from office life. This is supposed to do good to sedentary workers.

Once the aerobics were done, the walking 10,000 steps activity finally started. All participants walked in groups, when some were apparently faster walkers than others. Walking three circles of the field was happily done by every participant, which means everyone was a winner in this challenge. Many of them said "The 10,000 steps activity made me feel more confident and energetic, able to overcome anything that comes in my way. I don't care so much about how much time it took me than about my perseverance in doing it. Indeed, walking is proved to be linked to significant cardiovascular benefits and stress reduction, on top of the fresh air we are able to breathe. It's hoped that everyone can keep this attitude and stamina in the future."

This activity encourages people to take "walking" as a challenge so as to build strength and enhance stamina. After the exercise, they did show more enthusiasm and a good countenance that indicates health and youth. Apparently brisk walking has become a new culture for our colleagues at Delta. The activity ended now, yet it should be a good beginning, not an end by itself. "Walking 10,000 steps per day" is not a slogan; rather, it is something that requires effort and persistence from day to day.

BRAND NEWS

"Brand News Bi-Monthly Online Survey" winners

Congratulations to the following colleagues who won the Innergie PocketCell Duo:

Bell Bai, Kobe Li, Kimmy Wang, Ayran Yuan, Alice CC Lu, Rocket Zheng, Red Zhi, Z Zhang, Jerry Cao, Nut Pan

The winners will receive a letter from Brand News Bi-Monthly.


BRAND
NEWS


DELTA
Smarter. Greener. Together.