



October 28, 2010

Hosts 主辦單位：



Sponsor 協辦廠商：



Farewell! Let's Meet at CEPSI 2012 in Bali, Indonesia

再會！期待2012年峇里島再聚首

Today the AESIEAP 2010 CEPSI comes to a close. On behalf of AESIEAP and Taipower, I am greatly honored to express my gratitude to all of our distinguished guests and speakers and to all of the panelists and hosts who participated in our panel and technical sessions. Your enthusiastic participation and insightful sharing helped make this conference successful and memorable.

During this conference, top leaders in the power industry, professionals, experts and academics from power-related fields all came together for three full days of panel discussions and technical sessions, in which everyone shared their professional knowledge and management experience. I was very happy to see the way in which everyone participated in passionate discussion and mutual sharing on the topics of our industry's challenges and opportunities. I am sure that these interactions will help raise performance levels within our industry as well as lead to solutions for operational difficulties and open up new business opportunities. On that note, and in light of the benefits we have reaped by gathering together, the AESIEAP 2010 CEPSI comes to a perfect end today.

At this time, I want to thank the Taipei City Government for giving us a preview of the Flora Expo. And of course, I want to thank all the companies who took part in our CEPSI exhibition as well as all of the companies who helped with the set-up and sponsorship of this conference.

Allow me to also thank Chung-Hua Institution for Economic Research for their proper planning and my colleagues at Taipower for their dedication. Thanks to all of your hard work, this conference ran smoothly.

The time has come to pass on the hosting duties for AESIEAP 2011-2012 activities to a power company from Indonesia, PT PLN.

I am grateful to the hosts from Indonesia for providing us with tonight's splendid entertainment.

Thank you all for coming and I look forward to seeing you two years from now at the CEPSI in Bali, Indonesia. Goodbye!

Edward K.M. Chen

President of AESIEAP

Chairman of Taiwan Power Company

亞太電協2010年電力產業大會即將於今天閉幕。在此本人謹代表亞太電協與台灣電力公司感謝所有的嘉賓、講者、與談人和主持人參與本次會議中的專題研討與技術研討會。您們的熱情參與和無私分享，讓本次大會得以圓滿成功，令人難忘。

在會議進行的過程中，眾多業界頂尖領導人、專家和學者全心投入整整三天的專題研討和技術交流，使與會貴賓得以擷取他們寶貴的專業知識和管理經驗。我很欣喜地發現，每個人都熱情地針對當前電力產業所面臨的挑戰和機會進行討論和交流，我相信，這些互動將有助於提高我們業內的服務績效，並能導引出更多解決經營困境的方案，為我們開拓出新的商機。這就是我們期待這次聚首所能得到的收穫，因此，我可以充滿信心地宣布，我們為亞太電協2010年電力產業大會畫下了一個完美的句點。

在此，我要感謝台北市政府引導我們參觀即將於十一月開幕的「2010臺北國際花卉博覽會」。我也要感謝參與本次展覽的參展廠商，以及協辦本次大會的所有企業。

我還要特別感謝本次大會的籌備單位－財團法人中華經濟研究院，以及台電公司眾多參與此次盛會同仁，因為他們的完善安排與努力奉獻，使得本次大會的各項活動得以順利進行。

今後，我們將2011至2012年亞太電協會權的重責大任，交付給印尼PT PLN公司。在今晚的晚宴上，來自印尼的主辦單位也準備了精



President of AESIEAP, Edward Chen (right) and the calligrapher & painter invited by CEPSI Cultural Night, Yung-mo Chen (left).

彩的表演節目，讓我們先睹為快。

最後，我要再次感謝各位的光臨與參與，衷心期盼兩年後在峇里島再聚首。再會！

陳貴明

亞太電協 理事長

台灣電力公司 董事長

The Beautiful Bali is Expecting You!

我們在峇里島等您相聚！

It is my honor as the President of PT PLN, the Indonesia State Electricity Company, to be elected as President of AESIEAP for the next two years, in the Executive Members and Council Meeting on October 26, 2010.

I believe that we do aware, the different sectors of the energy industry currently are dealing with key considerations, such as the quantity of energy which will be required to meet ever growing demand, new sources of clean energy, energy efficiency, clean technology, the environmental, social and political issues associated with different energy development projects. However, limited world-wide investment capacities have created near and long-term future challenges in the power industry.

For that reasons, I sincerely encourage you to actively participate in all of the upcoming activities of AESIEAP, especially the study programs of the Technical Committee and also join our next CEPSI 2012.

I would also like to recall that in the event of CEPSI 2008 in Macau, Indonesia was elected to organize the event of CEPSI 2012 as the host. On behalf of Indonesian People, I would like to express my appreciation to Council Members and thanks to all of you for giving us opportunity to host the largest event on electric power industry in the region. I have an honor to invite all of you to join and participate for sharing your idea and experience in CEPSI 2012.

The CEPSI 2012 will be held in Bali, the Paradise island of Indonesia. Bali is the most popular tourist destination and also for convention in Indonesia. Some large world events have been held in this island. So, please make a plan to join us in CEPSI 2012 in

Bali. From now on, could you please put in your reminder--CEPSI 2012 in Bali Indonesia from October 22 to 26, 2012.

Finally, with the theme of CEPSI 2012 Bali: "Enhancing Clean Technology and Securing Investment for Electric Power Industry Sustainable Development", we will combine conference, business and pleasure. Thank you and welcome to Bali in 2012.

Dahlan Iskan
President of PT PLN

本人身為印尼PT PLN公司總裁，對於獲選為亞太電協新任理事長，深感萬分榮幸。誠如各位所知，我們所處的電力與能源產業，其中的各個行業，正面臨許多關鍵挑戰，例如：現有能源蘊藏量必須支應日漸成長的需求、清潔能源必須找尋新的來源、現有能源使用效率需要再提升等。另外，我們還必須加強清潔技術的研發能力，並且解決與能源開發有關的各種環境、社會和政治問題。可惜的是，全球各地有限的投資讓電力產業面臨了許多短期挑戰與長期困境。

正因為這些挑戰與困境，我誠摯地鼓勵各位積極參與亞太電協即將舉辦的所有活動，尤其是技術委員會的研究活動，以及2012年的電力產業大會。

回顧上一屆於澳門舉辦的2008年大會，當時，印尼很榮幸地獲選



為2012年大會的主辦國，在此，我謹代表印尼人民向大會的理監事致上最深的感謝，謝謝您們給予本國這個難得的機會，得以主辦東亞及西太平洋地區電力產業規模最大的盛會，在此也衷心邀請各位屆時踴躍參與，分享寶貴的想法與經驗。

2012年電力產業大會計畫在印尼的峇里島舉行。峇里島擁有「人間天堂」的美譽，是印尼最熱門的旅遊景點和會議中心，過去已有很多全球性的大型活動在峇

里島上舉辦，給予與會者難忘的回憶。懇請各位撥冗造訪峇里島，與我們相聚。

下屆大會將在2012年10月22至26日舉行，主題已訂為：「提升清潔技術、持續大力投資，以確保電力產業永續發展」。我們將呈現給各位專業的知識、無限的商機和怡人的休閒活動，歡迎各位來共襄盛舉。

Dahlan Iskan

印尼PT PLN公司 總裁

Various Facets of Electric Power Technologies are Debated 新興能源技術經歷各方討論

On October 28, the last day of the conference, there were more themes which center on global new energy utilization to be presented. In panel session D1, a highly popular issue of all was introduced. Speaking of the innovative trend of Smart Grid, Smart Grid transformation can be driven by distributed energy generation and integration. Distributed energy presents some exciting opportunities and can act as a catalyst to transform the industry. A "renewal" of the distribution model is needed to support high concentrations of renewable energy, which will result in micro grids and islands of self sufficient networks within the overall distribution network. In terms of the roles of government, utility companies and the consumer, the debate of the industry transforms with Smart Grid was started by Guido Bartels, General Manager of IBM's Global Energy & Utilities as well as Chairman of Gridwise Alliance, led the discussion with Hiroshi Okamoto of TEPCO; Jamal Cheema of Energy Australia; and Brad Gammons, Global Vice President, Energy and Utilities Industry, IBM.

In panel session D2, focusing on "Intelligence of Power Generation Sector", the chair Nelson Lai, President of Metrologies Enterprise Co., Ltd., Taiwan, led the discussion. Lai said, with the rapid economic growth, integrating strategies can be conducted in electric power generation system and implemented in terms of specific characteristics, needs, constraints and objectives electric power system of the countries. Lai also holds the position of President at CESI Taipei Office as well. In the process of developing innovation and energy efficiency, CESI is in compliance with Kyoto Protocol agreements. In Hsiao-Kan Ma's presentation, he showed that Taiwan is faced with the prob-

lem of reduction of greenhouse gas emissions by the Kyoto protocol so integrating strategies related to electricity price policy, carbon taxes and green certificates are required. He concluded in the discussion of how to increase energy efficiency with on-line monitoring systems.

The session of AMI was moderated by Hanan Carmeli, President and Chief Operation Officer of ClickSoftware. Advanced meter pilot projects have been underway throughout the world for several years. It is now time to bring the utilities industry one step closer to solving one of the most important technological challenges it faces over the next decade, deploying and integrating smart meter technology to provide energy more intelligently and efficiently. This panel discussed strategies to ensure successful deployment and how to ensure that AMI deployment achieves greater operational improvements and increased system efficiency.

Progressive nuclear generation and development will feature advances in safety, efficiency and reliability to meet future needs for clean and reliable electricity. Min Lee, Professor of National Tsing Hua University in Taiwan, was the first to expand on the situations of Taiwan's past, current and future nuclear power. Followed by Rosa Yang, Vice President of Department Technology Innovation of Electric Power Research Institute in USA, she remarked on the advantages of advanced nuclear generation, deployment and development. In Asia, countries like Korea, China and Japan have actively structured nuclear reactor and advanced nuclear power systems, in which steady progresses will be seen soon. It is great to see that a lot of practical and active discussions concerning establishes the feasibility to the current and coming generation nuclear energy systems are shared.



在會議的最後一天，舉辦的專題研討會仍涵蓋了眾多新能源應用的主題。以智慧電網的未來趨勢觀點來看，它的發展取決於能源發電與整合電力。智慧電網的發電模式與系統網路，可以轉變到何種程度？而政府、電力公司與消費者又扮演著何種角色？IBM協辦策劃的專題D1為此進行深度的討論。

專題D2討論到眾多國家因為經濟急速成長，需利用電力的整合策略以使大眾無缺電之虞，各公司應致力提高能源效率的研發工作。討論中也提到了台灣面臨京都議定書所規範之減碳的問題，

並闡述一些相關的可行性解決方案。

智慧型電錶基礎建設(AMI)已經被廣為推行很多年，電力產業下一步要因應它所帶來的挑戰，也就是設置與整合智慧電錶的技術，使系統能高效運作。核能發電現今已走向符合未來能源需具備乾淨及可靠之期待，亦呼應未來能源的趨勢。專題E2由台電公司的David W.C. Lin帶出核能主題，清華大學Min Lee主講台灣的核能之發展歷程與未來展望。講者從不同地區的核能發展切入主題，說明了核能的現況與趨勢，這些交流與分享值得與會者展望未來核能發展。

Your Full Support for CEPSI 2010 is Recognized 您的付出 我們永銘在心

CEPSI 2010, organized by Taiwan Power Company, is a remarkable conference and exhibition, which attracts the presence of high-profile brands from the electric power industries throughout the world. The biennial event provides good access to an influential and powerful assembly of key decision-makers, all of whom are interested in improving and exchanging knowledge and technology. We hereby highly appreciate several enterprises' assistance by sponsoring the event. In addition, we believe that CEPSI opens up more business opportunities for sponsors after the conference.

今年由台灣電力公司所主辦的亞太電協2010年電力產業大會，是國際知名的重要專業性會展。兩年一度的電力產業會展提供絕佳的平台，讓許多重量級電業決策者，交換與分享電業的知識與技術。在此大會衷心地感謝各大企業的贊助，我們相信贊助大會的企業今後能掌握更廣大的商機。

Edward Chen gives his special thanks to Taiwan Cogeneration Corp., Sun Ba Power Corp., Star Buck Power Corp. and Star Energy Power Corp.



Panel Session B2 is sponsored by Alstom



Edward Chen (left) presents the plaque to Guido Bartels (right), the representative of IBM, CEPSI Daily sponsor.



Panel Session C1 is sponsored by Siemens Ltd.



Appreciating Taiwanese Dance at Farewell Dinner Together Tonight 邀請您一同參與今晚之 藝術饗宴

This conference has significantly provided an excellent opportunity for the business community, government and other interested parties to hold open and robust discussions on the full range of the power industry issues. Time flies. At the farewell dinner party tonight, we are inviting the Lan Yang Dancers to perform traditional Chinese dance in the Banquet Hall of TICC.

To introduce the performing group, Father Michelini established the Lan Yang Dancers, since 1966, so as to maintain and perpetuate the very essence and features of the Chinese Folk dance. In the year 1984, in order to promote widespread education in these arts as well as to endow it with an international vista, he set up in Taipei the Lanyang Artistic Center to serve as the fundamental root and basic of Chinese art and cultural. The members of the troupe range in age from nine to eighteen. With the introduction of mature technique, and enthusiastic buoyancy, it prolonged the lifeline and emotions of the traditional Chinese dance. Therefore, they are considered to be the symbol of the art of dance in I-Lan. Please come to the farewell dinner and enjoy the dance on the final day of the conference!

過去這四天的CEPSI會議已提供企業專業人士、政府電力公司相關者與業界其它人員一個可公開熱烈討論關於電力能源的國際平台。時間飛逝，會議即將圓滿落幕。今天晚上國際會議中心三樓宴會廳所舉辦的閉幕晚宴，邀請台灣知名的蘭陽舞蹈團演出。蘭陽舞蹈團以保存民族舞蹈之深邃典雅，並以創新手法描繪古典藝術的傳統之美。近年來更極力開發台灣本土元素融入舞蹈中。為使遠道而來貴賓領略台灣藝術之美，蘭陽精選十分具台灣地方特色的舞碼，以呈現出台灣文化特有的生命力。請您今晚一同與我們欣賞這兼具美感與傳統特色之傑出舞蹈表演。

AESIEAP General Assembly Announced Important Figures and Facts 亞太電協會會員大會公布會務重要事項

In the afternoon of October 26, the 2010 General Assembly of the Association of the Electricity Supply Industry of East Asia and the Western Pacific (AESIEAP) was held to allow delegates and members to have a chance of communicating and networking.

Edward Chen, President of AESIEAP, hosted the assembly, conducting the adoption of the agenda. The Secretary General of AESIEAP, Guang-Ming Chuang, then revealed several figures and facts regarding the association:

1. Since last General Assembly in Macau, Venetian on October 31, 2008, there have been 12 applications for membership—2 Full Members and 10 Associate Members (8 organizations and 2 individuals).
2. As of September 2010, the total number of members was 123, among which Full Members are 76, Associate members 47 (Organizations 43, Individuals 4). (Note: Until October 26, 2010, the total number of members was 111.)

3. New members and office bearers of the Executive Committee have been elected. The new President of AESIEAP is Dahlan Iskan from Indonesia, the new Vice President is Young-jin Chang from Korea, and the new Secretary General is Suyyud Wartadipradja from Indonesia.

4. The Membership Directory for the years 2010-2011 has been updated. The Goldbook 2011 is also available on the AESIEAP website.

After C. T. Wan, the Honorary Treasurer, reported financial situations of the association to the members, Roslina Zainal, the Chairman of AESIEAP Technical Committee Executive Team briefly reported the results of its 3 Working Groups' study.

2010年亞太電協會會員大會於十月二十六日台北國際會議中心召開。會中，現任秘書長莊光明針對會務進行相關報告：

1. 自2008年於澳門舉行上一屆會員大會之後，新申請入會的會員共計12位。
2. 至本屆大會召開之前，會員數已達111位。
3. 新任執行委員會成員與幹事皆已選出，新任理事長為印尼PT PLN (Persero) 公司總裁Dahlan Iskan。
4. 會員手冊皆已更新，新版Goldbook也可在大會官方網站上下載。



Newly published Membership Directory and Goldbook were distributed on the General Assembly.

The 2010 General Assembly was held to announce important matters to delegates and members.



Snapshots of CEPSI 2010 Exhibition 展場實況剪影



Showcasing the vast development of the power industry and the latest trends as well as cutting-edge products and services, CEPSI 2010 Exhibition is not the expo you can afford to miss!

Guang-Ming Chuang, Secretary General of AESIEAP:

All the Support for CEPSI 2010 Helps Taiwan Standing on International Stage

In the capacity as Secretary General of the Association of the Electricity Supply Industry of the East Asia and the Western Pacific (AESIEAP), Guang-Ming Chuang, Vice President of Taiwan Power Company (Taipower), would like to thank all the support and assistance for CEPSI 2010 from distinguished guests, visitors, delegates, sponsors and exhibitors. Because of their presence, the offer of resources and generous exchange of information and experiences, the company and the nation have this valuable opportunity to stand on the international stage.

In 2005, Taipower obtained the right to host the activities of AESIEAP for 2009 to 2010. In order to organize these great conferences and exhibitions successfully, Chuang has been leading a professional team to prepare all the related matters since 2007, making the conference extremely conducive to the promotion of exchanges between the power industry of Taiwan and that of the world, and improving and lifting Taiwan's image globally.

CEPSI, held by AESIEAP every two years, has become the largest and most professional electricity conference and exhibition in the Asia-Pacific region. Due to its scale and importance, the host of the conference and exhibition usually has to invest great time and efforts to make everything in order. Furthermore, AESIEAP established a new guideline for hosting the activities after CEPSI 2008, and Taipower is the first host to follow the new guideline. The pressure of hosting the event is undoubtedly high. How-



ever, through the process of preparing the event, the electricity and related industries in East Asia and the Western Pacific region have obtained a deep understanding of the tremendous efforts exerted by and achievements of Taiwan in the electric power development sphere. "The conference has surely enhanced the understanding of the world to Taiwan's electric power industry, and vice versa. From the hot responses from local exhibitors and visitors, we know that the industry highly cherishes this great opportunity," said Chuang.

CEPSI 2010, under the theme of "challenges and opportunities of the electric power industry in an uncertain era", provides a platform for all the representatives from electric power companies and industry organizations to discuss the soaring electricity price, the low carbon strategy, the changing regulations and advanced technology requirements. Chuang pointed out that the indus-

try has accumulated a lot of anxiety due to all of these uncertain situations. Attendees of the conference should be able to release their anxiety and develop some solutions by sharing and listening experiences from the keynote speech, special address, 9 panel sessions, 52 technical sessions and other arranged activities. All the arrangements will help attendees roll out their plan and set the goal for the electric power industry in their respective

countries so as to mitigate the uncertainty of the future development.

The conference surely explored higher level technological and management issues, which left favorable and profound impressions on the minds of the delegates and guests. As the conference is going to the end, they are expressing an earnest hope for further talks and discussions in the future.

亞太電協秘書長莊光明： 感謝各界的襄助 讓台灣站上世界舞台

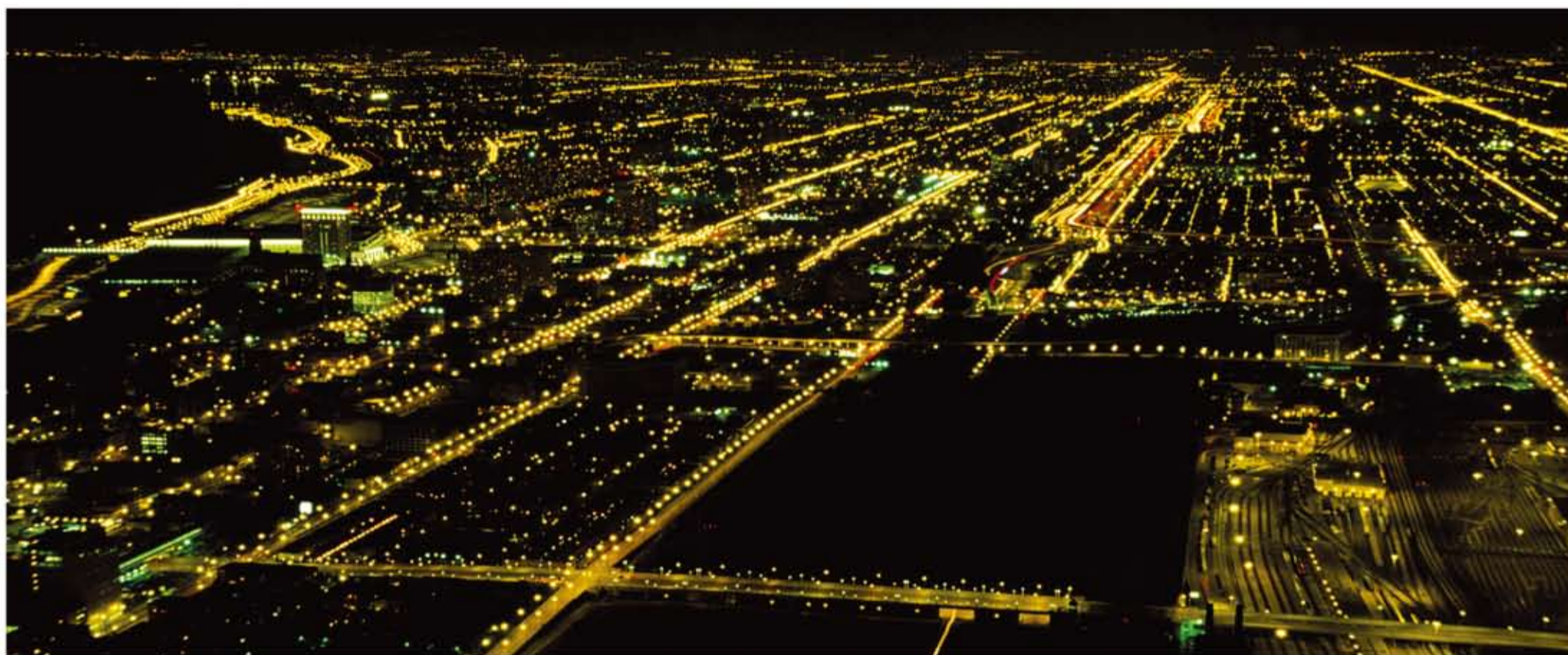
感謝各界的支持與襄助，是台灣電力公司於2005年爭取到主辦2009至2010年東亞暨西太平洋地區電力事業協會（亞太電協）會務活動至今，最想說的話。台電副總經理暨亞太電協理事會現任秘書長莊光明表示，台電透過承辦亞太電協第十八屆電力產業大會，對內得以凝聚業界共識，加強產業國際觀，對外也讓全球電力業界先進更加認識台灣電力產業，進而認同台灣的努力，對台灣與台電而言，是站上世界舞台的可貴機會。因此，他在接受訪談時，感謝之情溢於言表。

兩年一屆的電力產業盛會，大小事務多如牛毛，亞太電協更在2008年澳門主辦會議與展覽之後，制訂主辦會展相關準則，台電公司因而成為第一個遵循新訂準則的主辦單位，一切執行過程與成果都將成為後繼主辦單位的效法標竿，其中的辛勞與壓力自不在話下。然而，正因為台電公司積極推動此一國際會議與展覽，無形中讓全球電力產業更加認識台灣，台灣的電力相關企業也

透過台電所搭建的橋樑，更熟悉國際間電力產業的發展狀況。「過去台灣電力相關國際會議較少，與國際間接軌管道有限，從這次國內與會與參展的盛況可知，國內業界相當珍惜此次與全球先進的交流機會。」莊光明說。

莊光明指出，由於燃料蘊藏量有限造成價格飆漲，全球暖化也引發對減碳議題的關注，未來電力相關法規勢將日趨嚴格，對電力技術提昇的要求也會日益加劇，電力產業界近年來面對這種大環境的不確定性，已累積不少焦慮與疑問，透過本屆大會中所安排的國際電業及廠家經驗分享、專題研討、技術研討會及其他各式活動，業界得以交流分享、凝聚共識，並進一步探究未來合作、共同發展的可能性。

可以肯定的是，本屆大會已成功促進東亞及西太平洋地區電業及相關產業間的合作交流，幾乎所有的與會者，在會議與展覽進入尾聲之際，皆感到不虛此行、滿載而歸。



SMART GRID IMPACT ON CLIMATE CHANGE: the Smart Grid Carbon Model

The Smart Grid Carbon Model (SGCM) allows utilities to understand the effect on emissions due to their Smart Grid investments and impact to their business case and overall emissions strategy. As utilities plan and execute on their Smart Grid roadmap and climate change continues to be an important issue, it is important for them to assess how their investments impact carbon emissions. IBM in partnership with the GIUNC, developed the Smart Grid Carbon Model (SGCM) that allows utilities to understand what reductions can be achieved in their system. It also helps them to identify which changes should be focused on first for their electricity system, what is the interdependence between different changes when applied in their electricity system and where is the evidence base to convince their government, regulator and investors of the need and rationale to change. Called 'levers' here are some smart grid mechanisms that can positively influence climate change:

- **Conservation Effect of Consumer Information and Feedback Systems** - the interface of a smart grid with two-way communications and smart devices.
- **Time of Use Tariffs** - communication of real-time prices to raise consumer awareness and integration of price signals with thermostats and appliances.

- **Enabling Mass Deployment of Diagnostics in Residential and Small/Medium Commercial Buildings** - real-time sensing and communication assets coupled with end-use information to enable automated profiling of systems that detect malfunctions and alert the consumer.
- **Marginal Efficiency Measures Enabled by Accurate Measurement and Verification** - precision measurements provide additional value by offering measurement and verification (M&V) of energy savings from end-use efficiency programs.
- **Shifting Load to More Efficient Generation** - shifting load from peak load to shoulder or off-peak-load periods, using demand response and distributed generation and storage. This along with demand response or storage, can save energy, reduce carbon emissions and peak load generating resources.
- **Electric Vehicles/Plug-In Hybrid Electric Vehicles** - replacing gasoline-fueled with vehicles that derive a significant fraction of their energy from electricity reduces the dependence on oil and the carbon footprint of transportation at the same time.

- **Conservation Voltage Reduction and Advance Voltage Control** - end-use energy consumption has been shown to drop when the electric service voltage is reduced.
- **Power Factor Correction** - although reactive power is needed for all the magnetic devices found in any electrical system, it's undesirable because it causes a low power factor which translates into excessively high current flows and inefficient use of electrical power.

- **Support Penetration of Generations from Renewable Sources** - more seamless integration of renewable resources and other distributed energy resources including energy storage.

More about the Global Intelligent Utility Network Coalition can be found here:

www.ibm.com/smarterplanet/grid

Billions of dollars are wasted on energy that never reaches a single lightbulb. A smarter planet needs smarter energy systems. **Let's build a smarter planet.**
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