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IEC ACTIVITIES IN DEVELOPING COUNTRIES (NOVEMBER 2010 – MARCH 2011)

Update provided by the IEC

The following information was provided by the IEC (International Electrotechnical Commission) at the TBT Committee meeting of 24-25 March 2011.

1. This report to the WTO Technical Barriers to Trade Committee highlights the activities of the IEC, its Members and Affiliates, and Regional Centres, related to increasing the participation of developing and newly industrialized countries in IEC International Standardization and Conformity Assessment activities.

I. IEC NEW DEVELOPMENTS

A. IEC WHITE PAPER ON SMART ELECTRIFICATION

2. In September 2010, the IEC published a White Paper, Coping with the Energy Challenge – The IEC's role from 2010 to 2030 – Smart electrification – The key to energy efficiency. The Paper was prepared by the IEC MSB (Market Strategy Board) composed of Chief Technology Officers from the world's electrotechnical community. It takes a long-term view, up to 2030, of the electrical energy issues facing our society the IEC's role in responding to these issues. Drawing heavily on data from the IEA (International Energy Agency), the IEC believes that smart electrification, the intelligent and economic use of electricity as a major energy source, will be one of the most significant factors in addressing the energy challenge. Electricity is the most versatile and controllable form of energy, the easiest and most efficient to distribute. At the point of use it is practically loss-free and essentially non-polluting and it can also be generated cleanly. The IEC has identified key areas where significant emission reductions of greenhouse gases and efficiency increases can be achieved without holding back economic development. The IEC will emphasize the need for standards to achieve systemic efficiencies and to develop a set of specifications giving minimum acceptable performance rules and options for the operation of smart electric grids. The IEC will strengthen its ties with a range of relevant international and governmental organizations and invite them to join forces with it in an effort to combine both policy and technology to progress smart electrification. Relying on the IEC's technical competence and ability to involve all relevant stakeholders is a major factor that will allow the global community to build a better future.

3. A summary of the White Paper was circulated in the IEC Report to WTO Members in November 2010. An electronic copy of the full version is downloadable on the IEC website.

B. SMART GRID STANDARDIZATION

4. Building on the launch of the recent IEC White Paper and represented by its Smart Grid Strategic Group 3 Chairman, Richard Schomberg, the IEC was given the opportunity to present its

smart electrification strategy at the November 2010 G20 ministerial summit meeting in South Korea. The message delivered to the audience was that IEC had the International Standards needed by industry and government to take action, increase the efficiency of the existing electricity grid and identify those areas for improvement. IEC has already mapped out the energy chain and the metric relevant to redesigning the energy chain. More in IEC e-tech December 2010.

C. HIGH-TECH TRADE

5. IEC Immediate Past President, Jacques Régis, addressed leaders of 65 electronics associations from all continents during the WEF (World Electronics Forum) held in Las Vegas, USA, in January 2011, which took place in parallel with the CES (Consumer Electronics Show). He underlined the importance of international standards for innovation and global trade in electronics and explained how globally relevant specifications and metrics, combined with consistent conformity assessment allow electronics manufacturers to reach many more markets, including major development markets, faster and at lesser cost. Delegates could learn that any company may provide comments on any IEC International Standard provided that they are scientifically and technically sound. Also, any company, however big or small, may participate in IEC Standardization work through the auspices of its NC (National Committee). More in IEC e-tech January-February 2011.

D. IEC INTERNATIONAL STANDARD FOR UNIVERSAL PHONE CHARGER

6. IEC published the first globally relevant universal phone charger standard for data-enabled mobile telephones in January 2011. IEC 62684 covers all aspects of the charger, connector and plug, as well as safety, interoperability and environmental considerations.

7. IEC General Secretary and CEO Ronnie Amit said "We all have drawers full of chargers that became obsolete as soon as we buy a new phone. Today, we have a truly operational global standard that will allow the industry to end this waste and significantly reduce environmental impact. This is something millions of consumers have been waiting for. I am proud that the IEC has managed to get the best possible technical solution in record time to the market."

8. The International Standard IEC 62684, Interoperability specifications of common external power supply (EPS) for use with data-enabled mobile telephones, has been accepted by the National Committees participating in IEC TC (Technical Committee) 100: Audio, video and multimedia systems and equipment. More in IEC News release 2011 – No 3.

E. IEC INTERNATIONAL STANDARDS AND ELECTRIC VEHICLE CHARGING

9. The IEC and e8, a global organization of 10 world leading electricity companies, for the first time, have brought together all major stakeholders that need to collaborate to accelerate the global roll-out of EVs (Electric Vehicles). At this high-level international round table that took place on 19 January 2011 in Washington DC, USA, and which represents a milestone in the future growth of these vehicles, all participants confirmed that the IEC's existing and proposed International Standards for EV charging satisfy their global needs. The objective of the round table was to determine priorities for the development of EV-related standards, to define future needs, and to accelerate the broad adoption of the relevant International Standards that will enable global interoperability and connectivity. More in IEC News release 2011 – No 4.

II. IEC AFFILIATE COUNTRY PROGRAMME

A. A FREE PROGRAMME FOR DEVELOPING COUNTRIES

- Upon invitation from IEC General Secretary, free of charge and use of the IEC's electronic environment;
- Official commitment from the IEC Affiliate Country to use IEC International Standards at national level and to participate in IEC standardization work (Pledge document);
- Facilitated adoption of 200 IEC International Standards as national ones;
- Launched in 2009, new Affiliate Plus status gives right to 400 IEC International Standards;
- for national adoption and mentoring from IEC Member countries;
- Login access to the working documents, up to and including CDV stage, of 10 selected IEC TCs/SCs (Technical Committees/Subcommittees);
- Guidelines to use IEC Conformity Assessment Systems;
- Assistance to establish a National Electrotechnical Committee;
- Participation in IEC General Meetings, including attendance to technical meetings and workshops;
- Online training and guidance via IEC electronic tools.

B. AFFILIATES SECTION ON IEC NEW WEBSITE

10. In January 2011, the IEC launched a new website. The new site navigation philosophy uses menus for broad concepts. Subjects are first introduced and then elaborated more in detail. The Affiliates section was restructured to be more user-friendly and to give participants in the IEC Affiliate Country Programme useful tools to participate in IEC free programme for developing countries.

11. IEC Affiliate countries can now access their dashboard using shortcut urls: ACP (Affiliate Country Participant) + ISO country code (2 letters). Example for Malawi: http://www.iec.ch/acp-mw.

C. MORE NATIONAL ELECTROTECHNICAL COMMITTEES IN DEVELOPING AND NEWLY INDUSTRIALIZED COUNTRIES

12. Since the publication of the IEC Affiliate Guidelines in 2009, 12 Affiliate countries have reported the establishment of their NEC (National Electrotechnical Committee). Many developing countries may not be in a position to bring together all the stakeholders in the field of electrotechnology. A starting point is sometimes to establish a "basic" National Electrotechnical Committee with just a few stakeholders being involved. This enables the development of a "core" infrastructure allowing the country to benefit from the IEC Affiliate Country Programme and, with time, other stakeholders are involved. After establishing its National Electrotechnical Committee within the IEC Affiliate Country Programme, Georgia was able to involve enough stakeholders representing the public and the private sectors and became IEC Associate Member in 2010.

D. 13 COUNTRIES WITH AFFILIATE PLUS STATUS

13. The Affiliate Plus status is the ultimate step of the IEC Affiliate Country Programme for developing countries that have met certain criteria of participation, but are not yet ready to become Members of the IEC. It is an intermediary stage to allow such countries to understand and participate in the work of the IEC, while adopting IEC International Standards.

14. Launched in 2009, the Status has already been granted to 13 countries that fulfilled the Affiliate Plus criteria: they declared the national adoption of at least 50 IEC International Standards and set up their National Electrotechnical Committee. This gives them now the right to double the number of IEC International Standards for adoption (400 instead of 200) and to apply for mentoring to enhance their participation in IEC technical work.

E. IEC AFFILIATES USE THEIR ADOPTION RIGHT

15. With the launch of the IEC Affiliate Country Programme ten years ago (2001), the adoption of IEC International Standards has been facilitated for developing countries. With now 3500 IEC International Standards used as national standards in 36 Affiliate countries as well as on regional levels, there is no doubt that the IEC has a role to play in the developing and newly industrialized world in terms of electrification programmes, safe use of electrical household appliances, renewable energies, electrical energy efficiency, conformity assessment, etc. IEC International Standards on plugs and sockets, low voltage electrical installations, cables, switches, safety of household appliances, conductors, batteries or safety requirements for audio, video and similar electronic apparatus are most often adopted for use on the national level. More on Affiliate adoptions on the IEC website.

III. IEC AND CONFORMITY ASSESSMENT

16. The IEC supports all types of CA (Conformity Assessment) – first, second and third party – and administers three global CA Systems, each of which operates Schemes based on third-party conformity assessment certification. Together they establish that a product is reliable and meets expectations in terms of performance, safety, efficiency, durability and other criteria. IEC International Standards and CA Systems help reduce trade barriers caused by different certification criteria in different countries. The IEC CA Systems also help remove significant delays and expense for multiple testing and approval. This allows industry to reduce cost and enter markets faster with its products. The IEC CA Systems – IECEE, IECEx and IECQ – each cover a dedicated segment of electrotechnology. Their ultimate objective is to facilitate global product acceptance by means of one test, one certification and, when appropriate, one mark valid in all markets.

A. HISTORIC AGREEMENT BETWEEN IEC, ILAC AND IAF

17. An historic agreement between IEC, ILAC (International Laboratory Accreditation Cooperation) and IAF (International Accreditation Forum, Inc.) in October 2010 will help significantly reduce cost, time and complexity for the reassessment of certification bodies and testing laboratories that are accredited by IAF and ILAC Member ABs (Accreditation Bodies). One of the most important outcomes of the tripartite MoU (Memorandum of Understanding) is that henceforth a single reassessment – instead of three – will suffice and be accepted by all three bodies. This type of cooperation agreement is unprecedented in the conformity assessment world and builds on years of collaboration between the IEC Conformity Assessment Systems, ILAC and IAF. A common Steering Committee was created and will be responsible for developing cooperation strategies, providing support and dealing with project issues and deliverables. Another objective set out by the MoU is to facilitate a coordinated application of ISO/IEC International Standards and guidance documents for the purpose of assessment of certification bodies and testing laboratories operating in the IEC CA Systems. This includes a common understanding of the technical issues and the harmonization of the respective assessment procedures. Provisions are also made for joint training and workshops for lead assessors, and when possible, joint work on the development of harmonized procedures and policies.

B. IECEE – IEC SYSTEM OF CONFORMITY ASSESSMENT SCHEMES FOR ELECTROTECHNICAL EQUIPMENT AND COMPONENTS

18. IECEE covers safety and performance for a wide variety of equipment and components used in homes, offices, workshops, healthcare facilities and more. IECEE Test Certificates are mutually recognized by all members. A product that has been tested in one member market will not have to be retested in another, if the relevant national differences have been taken into account. As a result approval and certification at the national level is greatly facilitated.

C. IECEE CB-FCS

19. The streamlining of the IECEE CB-FCS (Certification Body-Full Certification Scheme) in 2010 proved to be extremely successful. Harmonized documentation and forms and simplified procedures have turned what was a fairly complex scheme into the perfect instrument for companies that plan global product rollouts. IECEE's objective in establishing the CB-FCS was to offer the most comprehensive product certification scheme in the world, based on the principle of mutual recognition of Conformity Assessment certificates and factory inspections by its Members. Many IECEE NCBs (National Certification Bodies) immediately seized the importance of the Scheme and its impact on international certification. To date, 31 IECEE NCBs have signed the CB-FCS Multilateral Agreement. With CB-FCS the manufacturer is able to complete all certification and factory inspection steps in the country the factory operates in. Without CB-FCS, a factory certification involves the regular submission of samples to every export country as well as initial and regular factory visits by inspectors from each of those Certification Bodies operating in the exporting countries, a process that is costly and time-consuming.

D. SAFETY OF HOUSEHOLD EQUIPMENT

20. With globalization and industrialization, the safe use of electrical appliances is a priority for industries and governments, in particular in developing and newly industrialized countries where the quality of imported goods has become a key issue. The regulatory environment applied to electrical appliances varies from country to country, but manufacturers usually have to contend with either a performance-based or a pre-market intervention regulatory environment. In both cases, standards are vital for the appliance industry to manage the risk associated with electricity and appliances. The IEC organized a workshop on Ensuring performance and safety of household electrical appliances in industrializing countries during its 74th General Meeting in Seattle, USA, in October 2010. The objective of the workshop was to demonstrate how the IEC provides both International Standards and IECEE Conformity Assessment as the platforms for promoting safety. The IECEE Executive Secretary co-chaired the workshop with the Chairmen of IEC TC 59: Performance of household and similar electrical appliances, and IEC TC 61: Safety of household and similar electrical appliances.

E. IECEE CB TEST CERTIFICATES

21. The total number of IECEE CB Test Certificates issued in 2010 is the highest ever, with more than 71 000 certificates. In comparison, IECEE issued 59 654 certificates in 2009.

F. IECEx – IEC SYSTEM FOR CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE IN EXPLOSIVE ATMOSPHERES

22. IECEx covers the highly specialized field of explosion protection associated with the use of equipment in areas where flammable gases, liquids and combustible dusts may be present. This System provides the assurance that equipment is manufactured to meet safety standards, and that services such as installation, repair and overhaul also comply with IEC International Standards on

safety. The System has recently been endorsed by UNECE (United Nations Economic Commission for Europe) as the recommended Conformity Assessment System for hazardous environments.

G. IECEx CERTIFICATION OF PERSONNEL COMPETENCE SCHEME

23. Included in the last report was information concerning the new IECEx CoPC (Certification of Personnel Competence) Scheme being finalized for which the previous explosion that caused an oil spill from an offshore drilling rig in the Gulf of Mexico demonstrated the need for extremely strict safety measures for equipment and competence of personnel in such an environments. Since the last report, the new IECEx CoPC Scheme was launched with the first IECEx CoPC Certificates now being issued and publicly available on the IECEx On-Line Certificate System.

24. This new IECEx initiative provides regulators, plant owners and those responsible for safety and compliance of Ex installations, such as oil and gas, grain handling, etc. with an instant means of confirming the competence of individuals to apply Ex related work according to IEC International Standards.

H. SPECIAL UNIQUE EX EQUIPMENT AND SYSTEMS NOW COVERED BY IECEx UNIT VERIFICATION CERTIFICATES

25. As a result of industry demand, the IECEx Certified Equipment Scheme extended in November 2010 with a new feature to provide for the issuing of an IECEx Unit Verification Certification to cover "one-off" special purpose built equipment used in areas that are likely to encounter explosive gases or vapours or combustible dusts.

I. OFFICIAL UN ENDORSEMENT OF IECEx VIA THE UNECE

26. Following a four-year project of the UNECE to develop a model regulation for consideration by all UN Members, the UNECE has concluded that use of IEC TC 31 International Standards supported by IECEx Certification is recommended as the basis for national regulations governing the sale and use of Ex equipment, Ex servicing and the competence of personnel in the Ex field. This recommendation and endorsement of IECEx and IEC TC 31 is to be demonstrated in the UNECE CRO (Common Regulatory Objective) document due to publication in March.

J. IECQ – IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS

27. IECQ ensures the safety and reliability of electronic components used in the IT industry, avionics, and more. It also monitors and tests the use of hazardous substances in electrical and electronic equipment and provides assessment and certification for facilities that handle unprotected ESD (electrostatic discharge) sensitive devices.

K. IECQ RE-ENGINEERING FOCUSES ON THE FUTURE

28. IECQ accomplished a complete re-engineering of the System with the publication of the new Rules of Procedure to streamline the certification processes covering:

- IECQ Approved Components
- IECQ Approved Processes
- IECQ ECMP (Electronic Components Management Plan)
- IECQ HSPM (Hazardous Substance Process Management)
- IECQ ITL (Independent Testing Laboratory)

29. Included in this overhaul is the provision of assessment and certification of companies that operate an electrostatic discharge management system to control the harmful effects of electrostatic discharge.

IV. IEC'S ENGAGEMENT IN THE ASIA-PACIFIC REGION

30. The IEC actively engaged with new and current stakeholders in the Asia-Pacific region to help promote the awareness of the IEC, its International Standards and Conformity Assessment Systems and the benefits of participation. In addition to promotional activities, the IEC actively supports the training of experts from developing economies on the development of IEC International Standards. Some of IEC's recent engagements in the region include:

A. IECEx SEMINAR IN BRUNEI DARUSSALAM, 11 NOVEMBER 2010

31. The Seminar was a follow-up to the recommendations made at the IECEx Symposium in Brunei Darussalam in 2008. Organized to help the local authorities and industries have a better understanding of the new IECEx Certification Personnel Competence Scheme and its benefits, the Seminar saw keen participation from both the public and private sectors. Following an active discussion at the Seminar, it concluded with a recommendation for more and deeper discussion on standards and conformity assessment relating to IECEx in the future. More in IEC e-tech December 2010.

B. NINETH JISC/IEC/APSG HUMAN RESOURCE DEVELOPMENT SEMINAR ON STANDARDS FOR ENERGY AND RESOURCE SAVING, KUALA LUMPUR, MALAYSIA, 30 NOVEMBER-1 DECEMBER 2010

32. The Seminar was organized to create awareness of the latest IEC developments relating to energy efficiency of household and IT appliances, audio, video and media systems as well as on design automation. With the energy efficiency of products being increasingly regulated, it is important to expose the industry and government bodies on these developments and to encourage the use of IEC International Standards. Participants from 10 economies in the Asia-Pacific region attended the event, with strong industry participation from Malaysia. Training on IEC International Standards development process was also organized for Malaysian experts back to back with the Seminar.

C. LITES.ASIA, BANGKOK, THAILAND, 7-8 DECEMBER 2010

33. Lites.asia is a network established to facilitate greater participation by Asian economies in the development of IEC International Standards for lighting quality and efficiency. The IEC participated in the lites.asia meeting to assist participation on international standardization through sharing on the processes and procedures involved in the development of IEC International Standards and providing the latest updates on the IEC and its work on lighting. Lites.asia is established with funding from USAID (United States Agency for International Development) and the Australian Government Department of Climate Change and Energy Efficiency.

D. JOINT ISO/IEC REGIONAL COURSE ON ADOPTING AND REFERENCING INTERNATIONAL STANDARDS, SINGAPORE, 9-11 FEBRUARY 2011

34. Organized jointly for the first time by ISO and IEC, the Course shared on the national obligations on the use of international standards under the WTO TBT Agreement, guidance on policies and practices that National Standards Bodies should establish on the adoption and referencing of international standards and the methods for adopting international standards. Participants from 14

Asia-Pacific economies attended the course, representing the National Standards Bodies (52 per cent), the government (40 per cent), industry (4 per cent) and other stakeholders (4 per cent).

V. IEC REGIONAL CENTRE FOR LATIN AMERICA SUPPORTS IEC AFFILIATES

35. The IEC-LARC (IEC Regional Centre for Latin America) is the focal point and resource for the IEC in the Latin American region, helping to promote awareness of the IEC in the region, increase the use of IEC International Standards and IEC Conformity Assessment Systems and enhance participation and membership of countries in the region. The IEC-LARC coordinates and organizes training events, seminars and workshops that match the needs of the region. Events range from seminars on the use of IT tools in the IEC to workshops on specific technical areas. Besides focusing on IEC Members, IEC-LARC is also a focal point in the region for IEC Affiliates and other countries not yet involved with the IEC. During the Affiliate Forum held during IEC General Meeting in Seattle, USA, in October 2010, IEC-LARC Manager Amaury Santos assisted IEC Affiliate Leader Carlos Rodríguez, Costa Rica, at a meeting with the Latin American delegates from Honduras, Dominican Republic, Peru and Trinidad and Tobago. They discussed their NECs (National Electrotechnical Committees) and involvement of their stakeholders. The Secretary of the Peruvian NEC explained how INDECOPI, the National Institute for the Defence of Competition and Protection of Intellectual Property, had benefited earlier in June from special assistance from IEC-LARC and the IEC Affiliate Secretariat to organize a virtual meeting and awareness session for their stakeholders in order to get more familiar with the IEC. The aim was to show stakeholders of the future Peruvian NEC how the IEC website works and to demonstrate how the IEC's range of interactive tools can help Peru improve its participation as an Affiliate Country. The stakeholders were in Lima, Peru, and the speakers were on the other side of the world. The establishment of the Peruvian NEC was finally announced in October 2010.