

Meeting Report and List of Actions

lites.asia - Eighth Workshop

Manila: 2-4 October 2013

Summary of Actions

The eighth *lites.asia* workshop was held in Manila between 2-4 October 2013. Summary actions from the meeting are as follows.

Participants are:

- Asked to make their national standards committees aware that the vote on the Committee Draft of IEC 60969 will open on 1 November 2013 and close 7 February 2014. Participants are also asked to make their national standards committees aware of the impending vote for a new work item to develop a Technical Standard for the Performance of CFLs and, for those countries that are P-members of the IEC, encourage national committees to vote on the new work item.
- Encouraged to inform their national standards committees and other stakeholders of the availability IEA 4E SSL performance specification for non-directional LED lamps, directional LED lamps, LED downlighting fixtures, LED replacements for linear tubes and LED street lighting (refer <http://ssl.iea-4e.org/task-1-quality-assurance/>). Participants are also encouraged to consider the outcomes from the IEA 4E SSL testing programme and how they may impact on local laboratories and competence of other laboratories to test to local standards.
- Asked to comment on the draft regional position paper if desired and complete questionnaire on national circumstances where necessary.
- Asked to provide assistance and support to the *lites.asia* evaluator by providing details of the benefit (or otherwise) of participating in the *lites.asia* activities, and their view on the future direction of the initiative.

The Australian Government will:

- Initiate an evaluation of *lites.asia* to establish effectiveness to date and the future direction should that be appropriate

The *lites.asia* Operating Agent will:

- Issue news alerts when voting on the Committee Draft of IEC 60969 and the Technical Standard for the Performance of CFLs begin.
- Inform members when the draft CIE unified test method for LEDs is published.
- Update the summary on the *lites.asia* website of all LED standards under preparation or completed by the IEC.
- Circulate the draft regional position paper for comment (and questionnaire to allow update on national situation), and based on feedback/comments, prepare a final paper for submission to appropriate regional and international bodies.

Meeting Report

The eighth *lites.asia* workshop was held in Manila between 2-4 October 2013. The programme was split into two elements:

2-3 October 2013: ***lites.asia* forum**

4 October 2013: **A workshop to Share Standards, Labelling and Waste Management Experiences with the Philippines**

The programme and presentations from both elements are available [here](#)¹. The workshop was funded by Australian Aid's (AusAID) Fast Start activities through the Department of Industry, with considerable support and assistance from the Philippine Government's Department of Energy and the Philippine Lighting Industry Association.

***lites.asia* forum**

45 representatives from 18 countries were represented at the forum, the highest number for a *lites.asia* forum to date.

The forum was formally opened by the Under Secretary of the Philippine's Department of Energy. In addition to opening the forum, the Under Secretary also introduced the soon to be opened Philippine hazardous waste recycling centre which will process lamps collected as part of the extended producer responsibility programme now in operation in the country.

Once open, as usual the forum had a number of impressive presentations stimulating robust discussions across a broad range of topics. These have been drawn together into broad groupings and summarised below.

1. Updates on international standards

1.1. Test methods and performance standards at the IEC

The session was initiated by a short overview of the roles of a number of global standards bodies and where the IEC fits within this range of organisations.

Moving to the IEC specifically, the presentation began with a review of the lighting areas currently covered by existing and pending IEC standards, but then moved on to describe some of the new areas the IEC is seeking to accommodate. For example, developing new sample sizes within standards to make them appropriate for regulators rather than mass production (noting performance standards have recently been introduced by the IEC for LED luminaires). Further, there are new challenges emerging that are likely to require changes to the existing IEC lighting committee structure, particularly from LEDs where there is little delineation between lamp, package, connection, etc.

¹ www.lites.asia/news-and-events/events-workshops/eighth-lites-asia-meeting-october-2013

Related to LEDs, thanks were passed to Mr Roberto Cristobel for preparing a summary of all IEC LED standards that have been completed or are underway – [a recently updated version of which is available on the *lites.asia* website](#)².

The IEC presentation then moved on primarily to discuss the two issues on CFLs in which *lites.asia* has recently been focused. There has been progress with both the revision of the CFL Test Methodology (IEC 60969), and the proposal for a new work item to develop Tiers of Performance for CFLs. Both documents are in the process of being issued by the IEC for voting. The documents are as follows:

- PRESCO(OM)033 – The 2nd edition Committee Draft for Vote (CDV) of IEC 60969. This is due for publication by the IEC publication on 1 Nov 2013, with voting closing 7 Feb 2014. It will be issued with the official reference 34A/1701/CDV. This will be subject to normal IEC voting procedure which requires a simple majority of members to vote for it to be adopted.
- PRESCO(OM)034c - New work item proposal on CFL performance tiers – the content of this document is an outline of tiers of performance that would be worked on and ultimately issued as a Technical Specification that countries could adopt for regulation. This document has been submitted to the IEC for issue but the final issue date has yet to be advised by the IEC. When published, this new work item **requires** 50% of P-members that vote to support the proposal for the new work item. *lites.asia* members were encouraged to ask their national committees to vote for this proposal, both with the immediate aim of developing performance standards for CFLs, but also as the CFL specification has the potential to provide precedent for performance standards for LEDS.

Action 1: Participants are asked to make their national standards committees aware of the vote on the Committee Draft of IEC 60969 will open on 1 November 2013 and close 7 February 2014. Participants are also asked to make their national standards committees aware of the impending vote for a new work item to develop a Technical Standard for the Performance of CFLs and, for those countries that are P-members of the IEC, encourage national committees to vote on the new work item.

Action 2: *lites.asia* operating agent to issue news alerts when voting on the CDV of IEC 60969 and the new work proposal for performance tiers begin.

Action 3: *lites.asia* operating agent to update the summary on the *lites.asia* website of all LED standards under preparation or completed by the IEC.

1.2. Non-IEC standards, performance specifications and testing developments in LEDs

A number of items were covered relating to non-IEC performance specifications and related testing:

- An update was given on the IEA's 4E Solid State Lighting (SSL) Annex activities. Of primary interest to delegates were:

² www.lites.asia/downloads/iec-led-standards

- Minimum performance requirements for five products have now been issued for use by regulators (non-directional lamps, direction lamps, down-lighting fixtures replacements for linear fluorescent tubes and street lighting). Proposals are being considered for new specifications for planar luminaires, troffer retrofit kits and high and low bay luminaires. Consideration is also being given to work on life cycle and health issues.
- 54 laboratories from 17 countries are participating in an inter-laboratory comparison tests (IC2013) – with results from an additional 35 North America laboratory proficient testing programs submitted for inclusion in the analysis. Testing was expected to be completed in September of 2013, with combined interim results completed by November 2013. Efforts are being made to ensure participant laboratories that demonstrate appropriate abilities will be recognized by Accreditation Bodies for ISO 17025 SSL testing. More details are available at <http://ssl.iea-4e.org/>.

Action 4: Participants are encouraged to inform their national standards committees and other stakeholders of the availability IEA 4E SSL performance specification for non-directional LED lamps, directional LED lamps, LED downlighting fixtures, LED replacements for linear tubes and LED streetlighting (refer <http://ssl.iea-4e.org/task-1-quality-assurance/>). Participants are also encouraged to consider the outcomes from the testing programme and how that may impact on local laboratories and competence of other laboratories to test to local standards.

- A representative from Korea introduced some of the new problems brought to standards bodies by LEDs, modern building systems and emerging commercial applications. For example, a new shopping centre may have integration of digitally controlled lighting systems that may interact with the building heating and cooling systems, provide information to shoppers, and be controlled remotely by mobile phone. Hence, there is a desire for a new standard that addresses integrated electrical energy with intelligent lighting systems; Korea is attempting to develop such a standard and would like the IEC or other forum to do something similar.
- The Commission Internationale de l'Eclairage (CIE) received extensive comments from Europe on the previous draft of their globally unified test method for LED Lamps, luminaires and modules. A revised draft is approaching completion and is scheduled for the issue later this year.

Action 5: lites.asia operating agent to inform members when the draft CIE unified test method for LEDs is published.

- An introduction was made to the IFC's Lighting Asia off-grid lighting activities. This initiative is an extension of the Lighting Africa programme and seeks to provide private sector suppliers of lighting products with a framework to innovate and provide tailored solutions to individual markets. The IFC are providing market intelligence, testing and certification frameworks and, more recently, working finance to cover production expansion. Initial activities within the region are focused on India and Bangladesh, but are expected to widen

as more market opportunities are identified. More details are available from www.lightingafrica.org/asia/.

- Briefings were provided by Korea and Indonesia on national developments in (LED and non-LED) standards, labelling and end-of-life issues. Please refer to the individual presentations for further details.

2. Standards, labelling and lighting in the Philippines

In line with previous meetings, our host country (the Philippines) gave a more in-depth presentation on their local regulatory framework for lighting, the supporting infrastructure and a view from the industry on the past, present and future supply (and end-of-life) of lighting products.

- A representative for the Philippine Department of Energy introduced the Energy standards, labelling, MEPS and certification mechanisms within the Philippines, for lighting and other products. The presentation covered:
 - The political and economic incentive for the standards and labelling;
 - Organisations involved in the standards and labelling process, their institutional roles and interactions, and the legal basis for their operation;
 - The products covered and the required performance levels required by the various standards, labelling and certification legislation

In response to questions on laboratory capacity required to support the programme, the DOE representative noted that initially laboratory capacity was an issue. However, national capacity has now been developed and the Philippines also has two independent laboratories. Certification has been given to 2,000 lamps, but tests continue to establish performance over lifetime and certification will be withdrawn if lamps fail during this period.

Similarly, in response to questioning on monitoring, evaluation and enforcement, the DOE representative noted there has been two evaluations, last year and this. The Philippines has been working on the issue with the EU Switch programme on compliance, results of which are expected next year.

- A representative from the Philippine Lighting Association (PLIA) then provided some background to the lighting industry and association and their active role in the promotion of efficient lighting in the Philippines. In particular, the presentation highlighted:
 - The relative cost of electricity (and hence lighting) in the Philippines and Singapore, with the cost of electricity being 14 times higher in the Philippines relative to Singapore on a cost per capita GDP basis. Hence the critical need to promote efficient lighting in the Philippines and other relative low income countries;
 - Some of the risks of the current disorderly entrance of LEDs into the market and urgent need for appropriate regulation and application guidance, and enhanced enforcement

to ensure consumers of all kinds receive accurate declarations of performance and appropriate levels of service;

- The newly introduced programme to manage lighting waste in the Philippines through extended producer responsibility (EPR) modelled on the European experience, some details of which include:
 - The EPR system is managed by an organisation independent of government tasked with finding the solution – it is not considered to be the government responsibility to resolve problems associated with lighting waste;
 - The initial plan is to target major institutions and the aim is to collect approximately 10% of lamps. Collection is via collectors, transporters, etc. who have contracts with the EPR regulator. The recycling plant is currently under the control of the DOE (although the expectation is that this will be transitioned to a private sector operator after approximately a year). Mercury recovered from the recycling process will be stored until international agreement is reached on shipping/storage.
 - The recycling facility cost \$1.3m with the physical cost of the actual lamp recycling *estimated* to be 6 pesos per lamp (approximately \$0.15 per lamp). Approximately 150-200 million pesos (\$3-4.5m) are required to jump start the programme.
 - 5-10 years will be required for full implementation of the programme.

3. Street lighting: An issue for all

The session was initiated by an international expert introducing the key issues related to function and regulation of street lighting to ensure all participants had a basic understanding of the area. Areas covered included the purposes of street lighting; the need for efficient operation and to balance operational and first costs; and technical issues related to light distribution, uniformity of illumination, avoidance of glare, thermal performance, avoidance of insect ingress failure modes and electrical interference. Particular attention was paid to the issues of future proofing of installation (i.e., the need to ensure newer LED units are not product specific and can accommodate newer replacement products as they mature in the market) and to avoid unnecessary focus on S/P ratios³ which may lead to insufficient and/or inappropriate lighting levels.

The introductory presentation was followed presentations from China, Indonesia, Korea and Thailand on the various national strategies being deployed to manage street lighting including details of product standards and labels, lifetime costing, maintenance, etc. A representative

³ The S/P Ratio is the ratio of scotopic to photopic visual impact. Photopic vision is vision under well-lit conditions which provides for colour perception, and which functions primarily due to cone cells in the eye. Scotopic vision is monochromatic vision in very low light, which functions primarily due to rod cells in the eye. Mesopic vision is a combination of photopic vision and scotopic vision in low lighting, which functions due to a combination of rod and cone cells in the eye.

from CLASP also provided details of the [SEAD on-line tool](#)⁴ available to assist countries in their photometric analysis and cost estimation for pre-screening of available street lighting luminaires. Readers are encouraged to review the individual presentations available [here](#)⁵ for more details.

4. Update on national labelling compliance survey analysis

An update was given on the ongoing *lites.asia* labelling display survey and initial analysis of the results submitted from the surveys by Australia, the Philippines and Thailand was presented. Major outcomes were:

- Non-compliance with labelling requirements is variable, ranging from around 1% in Thailand (voluntary labelling) to almost 47% in the Philippines (mandatory labelling) and 57% in Australia;
- Where registration is required (Australia), 23% were unregistered (significantly worse than other products requiring registration).

No further action will be taken in Thailand due to their high levels of compliance, but both Australia and the Philippines have undertaken communications and awareness activities to highlight levels of non-compliance to suppliers, and intend to undertake follow-up surveys in 2014 to assess levels of improvement. Further enforcement actions may follow should improvement not occur.

Plans were outlined for future label surveys by India, Sri Lanka and Vietnam and the product testing undertaken by Pakistan as a quality control exercise prior to the introduction labelling in 2014 was mentioned.

5. Regional capacity review: Preparations for submission of a regional position paper to the UNEP global consultation on lighting

The *lites.asia* group agreed at the previous workshop (in Jakarta in April 2013) to prepare a regional position paper to identify and summarise:

- The potential energy and cost savings, and the associated reductions in emissions and other benefits, that are possible with a continued move to more efficient lighting in the region;
- The current policies targeting the improvement of lighting efficiency of countries in the region, and the opportunities to accelerate the transition to more efficient lighting;
- The physical, technical and human resources constraints that are limiting the progress of countries in achieving their policy goals;

⁴ www.superefficient.org/sltool

⁵ www.lites.asia/news-and-events-workshops/eighth-lites-asia-meeting-october-2013

- Proposals that may assist countries in delivering higher efficiency lighting and yielding maximum benefits without hampering national economic and social development goals or other international commitments.

The position paper could then be used at the national level, or for submission to regional and international bodies, to stimulate efforts to accelerate the move to move efficient lighting.

A first draft of the paper was circulated prior to, and presented at, the workshop. Major proposals from the paper include:

- Continue *lites.asia* as a regional forum of policy makers and technical specialists from the region to:
 - Continue sharing information with a view to potential harmonisation;
 - Support ongoing participation in IEC by national delegates;
 - Identify regionally appropriate operating conditions and performance criteria to be proposed to the IEC.
- Approach ASEAN Joint Sectoral Committee for Electrical and Electronic Equipment (JSCEEE) and Energy Efficiency and Conservation Sub-Sector Network (EEC-SSN) to work with *lites.asia* to:
 - Develop and agree to regional harmonised lighting energy efficiency performance standards;
 - Share information and participate in the IEC (through national delegates);
 - Aim for *lites.asia* community beyond ASEAN to participate.
- Propose seeking funding mechanism to facilitate staff exchange, round-robin testing and technical support for test laboratories in collaboration with the Global Efficient Lighting Centre (GELC) in Beijing.
- Develop regional body that can deliver training in MV&E capacity, possibly as an extension of *lites.asia* and/or in cooperation with ASEAN JSCEEE/EEC-SSN.
- Support industry transition through:
 - Acceptance by international community that *TIERS* of performance are necessary and no “one size fits all” approach to lamp performance is appropriate as some countries will initially need lower stepping stones as their industry develops;
 - Support for technological development of industry, again potentially through the seeking of funding for the GELC to provide technical service provision.
- Establish a regional donor coordination group, possibly working with *lites.asia*, ASEAN and/or the UNEP en.lighten initiative to deliver country appropriate solutions, but within a *regional umbrella strategy*.

During the following open forum discussion, the participants agreed:

- The paper broadly represents the current situation within their countries and the region, although some of the detailed national information required updating (partly achieved through individual feedback from the meeting, but further detail to be added via national questionnaires following the meeting). Delegates also agreed the regional focus should be extended to encompass the Pacific Island Countries;;
- The generic barriers identified as limiting progress on efficient lighting were accurate;
- The solutions proposed were appropriate.

Consequently, the delegates agreed that individual national details would be updated and the overall paper would be circulated for final review following the meeting. Any resulting updates would finalise the paper for submission to appropriate groups, with national representatives presenting the final paper to national governments for endorsement where appropriate.

Action 6: lites.asia operating agent to circulate the draft regional position paper for comment (and questionnaire to allow update on national situation), and based on feedback/comments, prepare a final paper for submission to appropriate regional and international bodies.

Action 7: Participants to comment on draft regional position paper if desired and complete questionnaire on national circumstances where necessary.

6. Update from UNEP en.lighten initiative

A representative from the en.lighten initiative gave a brief update on their overall activities, but of particular relevance for workshop participants, focused on a new set of Monitoring, Verification and Enforcement activities to be undertaken in the region in the near future. Details of the activities are still under development, but actions are likely to include actual benchmarking of lamp performance across the region through product testing, guidebooks and training programmes for laboratories, training programmes in market surveillance and sharing of knowledge through face-to-faces exchanged.

The new programme of work from MV&E in the region is likely to begin early in 2014.

7. Update on the Minamata Convention on Mercury

Participants were reminded that, immediately following with the *lites.asia* workshop, a conference was being held in Japan where countries were invited to sign the Minamata Convention on Mercury. This convention has particular significance to participants as it places restrictions on the manufacture, import and export of mercury containing products which obviously encompasses a number of lighting products. Specific arrangements are included in the agreement for CFLs, linear fluorescent tubes, cold cathode fluorescent lamps, and high pressure mercury products.

8. Evaluation of *lites.asia*

lites.asia was initiated in 2009. This means the initiative has been operational for four years. Over this time funding has been directly provided by the Australian and US government, and though extensive in-kind contributions from the host governments for each of our eight meetings, and through the participation of all our members. Activities have been extensive, including:

- A number of workshops (this being the eighth);
- Facilitating communications to the IEC committees and participation of some regional members in the committees themselves, and disseminating outcomes from the meeting;
- The development of LED Tropical Performance Specifications and Consumer Guide;
- A range of electronic communications, etc.

However, the current phase of *lites.asia* is approaching the end of the funding cycle, so it was agreed it would be appropriate to conduct an evaluation of whether participants have found *lites.asia* of value and, if so, how (to establish value for funding organisations to date); and whether the initiative should continue and, if so, in what form?

Action 8: Australian Government to initiate an evaluation process through a specialist programme evaluation agent.

Action 9: Delegates to provide assistance and support to the contracted evaluator by providing details of the benefit (or otherwise) of participating in *lites.asia*

Workshop to Share Standards, Labelling and Waste Management Experiences with the Philippines

On the last day of the event, 50 participants attended a special session held specifically for Philippine lighting stakeholders (manufacturers, suppliers, regulators, testing laboratories, government officials, etc).

The objective of the session was to provide these stakeholders with information on the standards and labelling processes that are in place within the region, and in particular the success *and* failures of those programmes, hence allowing Philippine stakeholders to learn from the combined experience of countries from throughout the region. The session also looked at end-of-life lamp issues in the various countries.

The session was officially opened by a Philippine DOE representative, followed by an introduction to *lites.asia*'s activities. A summary review of regional standards and labelling in the region was followed by individual presentations by representatives from Australia, Korea, Indonesia and Thailand, a number of which elicited audience discussion and questioning.