

# Lightline

## FROM THE CHAIR **CHRIS BYRNE** - LCNZ CHAIR



As another year draws to a close it is usual to reflect on the year past and also look forward to the coming one. For me 2023 went very fast, quite a lot happened and it culminated with an impressive evening at the annual IESANZ Awards dinner. Reflecting on the past year (and years), the lighting industry has endured major change, and now with a 'completed transition' to LED as the singular light source. It has taken about ten years, but now both suppliers and buyers should be comfortable in the LED world. But that doesn't end the transition.

As much as the change to LED is complete, it also opens a new world for us. Lighting has become digital and controllable – and so many more things. Now that we are 'connected' to the digital world we have many more things to consider – connectivity and controls, product features, lifetime performance, variable energy consumption, environmental performance, carbon footprints, and 'end of life'. All of these parameters are now considered in the luminaire selection for a modern lighting installation.

With this increased complexity in the application of our luminaires, lighting design becomes much more important. Design documentation no longer just represents the quantity and the uniformity of the light that the customer should expect. The lighting design should detail the exact luminaire that has been specified and the setup and programming for all of its qualities – not just its lumen output.

To achieve this, we need to protect lighting designs throughout the supply and construction process to ensure that what was designed is what gets installed, and this is the reason I spoke of a new ISO Standard at the IESANZ Awards dinner. The 'Commissioning of lighting systems in buildings' – ISO TS 21274:2020, sounds like a complicated document, but it is not. It is a very short document that outlines a procedure and QA process to ensure that what 'gets designed, gets installed', ensuring that the features and quality of the designer's vision and intent is upheld. By utilising documents such as this we can reinforce our position as professional players in the modern energy industry – ensuring our value-add and our financial viability for future years.

The ISO TS 21274 document is planned to become a NZ standard, and I'm sure it will be much discussed during the public comment period, but if you have any questions or feedback, please don't hesitate to contact me - Enjoy the rest of the newsletter.

Happy Holidays and warm wishes for the New Year!

## LIGHTING COUNCIL NZ **WHO WE ARE**

Lighting Council New Zealand Inc (LCNZ) is the industry association representing NZ lighting industry interests to consumers, government, regulators, and related industry and professional associations, across commercial, industrial, municipal, and residential lighting. Our goal is to develop and promote effective and efficient lighting practices in NZ and to advance the capabilities and professionalism of members with support for safety, performance, efficiency, and fair-trade in lighting.

More information on the LCNZ website: [here](#).

**BUSINESSNZ COLLABORATIVE ACTION ON AS/NZS STANDARDS DE-JOINTING**



Eighteen construction sector associations, including LCNZ, have banded together in collaboration with BusinessNZ to protest the rapid de-jointing of previously jointed AS/NZS technical standards. Many jointed AS/NZ Standards are being de-jointed due to a lack of funding. 503x standards have been de-jointed since 2016 and this figure is growing every month.

Headed by Director of Advocacy Catherine Beard, BusinessNZ is communicating with the Hon Andrew Bayly, Minister of Commerce and Consumer Affairs to seek support for a problem that has been developing over some years, and which has now reached a tipping-point in terms of urgency for resolution.

Substantial participation fees began to be required after Standards NZ was reformed and absorbed into MBIE in 2016. It is believed that Standards Australia assumed that Standards NZ's absorption into MBIE meant it had government backing with which it could pay its fair share for joint standards work. However, the funding model for Standards NZ did not change, despite industry advocacy that it needed to, and it remains a 100% user-pays business model. Standards NZ is unique in the world for the fact that it is 100% user-pays and receives no direct government funding.

If a government agency chooses not to support a joint standard as part of its regulatory process, industry bodies are called on to raise the necessary funds, often at short notice and with a short timeframe to find the funds. Participation fees can vary from \$7,000 to \$80,000 depending on the complexity of the Standard.

The result is that the collection-box gets passed around to businesses and industry organisations, the burden of which tends to fall on the same entities that already contribute the technical expertise of their staff participating in technical work, covering their travel costs, and cost of time away from work when attending standards meetings. This situation is unsustainable, as evidenced by the significant number of standards that have been de-jointed and continue to be de-jointed every month.

It is thought that Standards NZ would be able to prevent de-jointing occurring with additional annual funding in the region of \$4m, which the industry collective considers to be a critical investment. This project remains a work-in-progress and collaborative advocacy is aimed at seeking financial recognition of the public-good aspects of safety and performance standardisation.

**MASSEY UNIVERSITY LIGHTING - NOW ONLINE**



The Massey University School of Built Environment now offers a new format Graduate Certificate in Science & Technology - Lighting, with the program now fully on-line, and taught over two years part-time. This opens access to Australian and wider international students who can now participate in the highly regarded Massey program.

The program's online content is supplemented by regular live online tutorials, and optional on-campus days are available, where students have hands-on opportunities using equipment in Massey's well-equipped lighting lab.

To gain academic entry, students are expected to have either a university degree or sufficient professional experience to enter the Graduate Certificate.

Massey's program is accredited by the Illuminating Engineering Society of ANZ (IESANZ), and successful completion provides not only the Massey Graduate Certificate qualification but also meets the academic requirements for IESANZ membership.

For further information see the Massey University Website, or contact Susan Mander at [s.mander@massey.ac.nz](mailto:s.mander@massey.ac.nz)



Massey University Virtual Reality workshop



Exploring best practice in luminaire design



**SNZ HOSTS IEC SECRETARY GENERAL  
PHILIPPE METZGER**



In September Standards NZ organised a Wellington seminar to host a visit from the Secretary General of the International Electrotechnical Commission, Philippe Metzger. Based in Geneva Switzerland, Philippe is CEO of this major international institution, founded in 1906, with noted British physicist and engineer Lord Kelvin as its first president.

Proceedings were led by Peter Berry, the Chair of the IEC NZ National Committee. Peter outlined the extensive legacy of involvement by NZ experts in IEC work with input and leadership, particularly in the sectors of home appliances, medical equipment, electric fences, explosive atmosphere equipment, and lighting.

Philippe explained the work of the IEC and its key role in codifying and harmonising the safety and performance requirements for electrotechnical products worldwide. He encouraged the younger generation of standards engineers to explore their ambitions and to innovate with new ways to do things, and to bring new ideas and perspectives to the table to consider when coming to consensus.

Philippe also took opportunity to survey the new standards work on the horizon – A dizzying array! with smart digital standards, cybersecurity, green hydrogen, GHG emissions, biological convergence, quantum IT, the metaverse, and artificial intelligence. IEC AI standardisation has a particular focus on ethics, trust, transparency, and responsible adoption.

In addition to Philippe’s overview the seminar day featured three sessions with invited presentations by NZ IEC technical experts. Bryan King from LCNZ on environmental sustainability, Brian Fitzgerald from EECA on international standardisation, and Dr Thahirah Jalal from Transpower on digitalisation. Bryan presented on the subject of ‘Electrotechnical Decarbonisation – Towards a sustainable future’ and how as leader of the IEC environmental committee for lighting, his group was making progress on compiling guides and standards.

The seminar also acted as a send-off for Steve Lowes, SNZ head of international engagement with IEC and ISO, who was departing for a three-year secondment to IEC headquarters in Geneva.

A full Standards NZ review is [here](#)



*From Left to Right:* Standards New Zealand’s National Manager Malcolm MacMillan, Commercial Manager Danielle Aberdeen, IEC Secretary General Philippe Metzger, IEC New Zealand National Committee Chair Peter Berry, and Standards New Zealand Senior Advisor International Engagement Steve Lowes.



IEC Secretary General Philippe Metzger discusses the IEC Strategic Plan



Transpower NZ digitalisation engineer Dr Thahirah Jalal presents on NZ contribution to IEC standards

**THE LIGHTING COUNCIL NEW ZEALAND INNOVATION AWARD**



The 2023 Illuminating Engineering Society of ANZ Lighting Awards event was held at the Viaduct Events Centre in Auckland on 24 November. The IESANZ is one of LCNZ's key partners in the lighting sector, and recent discussions on closer collaboration resulted in the idea of a new award – for Innovation in lighting, the 'Lighting Council New Zealand Innovation Award'. This award is judged from all the projects entered in the IESANZ lighting awards and is awarded not for lighting design, but for the lighting project which shows outstanding innovation in any area.

The first Lighting Council New Zealand Innovation Award recipient was Michael Warwick of MAW Design Wellington, for the Ministry of Education Small or remote schools project. This is a four-year Ministry of Education programme for improving the interior facilities of up to 760 state schools that are small or in remote locations. The programme commenced delivery in 2021 and is expected to continue until 2025.

This is a uniquely challenging project, which in addition to the lighting design aspects, involves complex specification, procurement, project management and logistical tasks.

The project management highlights include:

- A fully detailed luminaire procurement specification supported by rigorous third-party product testing and verification.

- Well-researched and closely co-ordinated methods to overcome the logistical difficulties of managing and delivering the lighting upgrades for fragmented and distant school sites.
- Environmentally conscious e-waste treatment and resource recovery of the replaced luminaires, and the processing of packaging materials.

The MoE luminaire project partner is Signify, as the successful project tenderer with Philips brand LED luminaires. This project is a testament to what can be achieved with determination and the close interaction of consultant, supplier, contractors, and client.

LCNZ would like to congratulate Michael and his associated team for his innovative work.



Award Winner Michael Warwick (MAW Design) with Bryan King (LCNZ Executive Director) [left] & Chris Byrne (LCNZ Board Chair) [right]

**MORE FROM THE IESANZ LIGHTING AWARDS**



President of the IESANZ - Greg Williams



Dynamic Master of Ceremonies - Te Radar



Gerard Woods of Switch Lighting, winner of the Luminaire Design Award





## NZ GREEN BUILDING COUNCIL - GREEN STAR BUILDING - RATING TOOL UPDATE

Over the last few months LCNZ has been interacting with the New Zealand Green Building Council on public consultation for the update to the NZ 'Green Star Building' environmental performance rating tool. The purpose of the rating scheme is to evaluate the level of environmental performance of a commercial building at the design stage. NZGBC are updating the rating tool to be fit for purpose for at least the next five years.



LCNZ has submitted a substantial response on lighting technical and practical matters during the public consultation period and have later been in detailed discussion with NZGBC on ways that lighting application, lighting energy, and carbon emissions aspects could be improved and made more future-proof. The LCNZ feedback on the update draft highlighted outdated standards references and some perceived information gaps regarding adaptive lighting, controls, commissioning, energy performance, and obtrusive light mitigation.

In overview, LCNZ has recommended the following wish list:

- Ensure up-to-date inclusion of existing NZ and international best-practice methods.
- Align indoor lighting design with the recently updated ISO/CIE standard.
- Align outdoor obtrusive light control with the recently updated AS/NZS standard.
- Align indoor lighting energy performance with the new NZS (ISO/CIE) system standard.
- Include lighting system commissioning to the ISO commissioning specification.

The 'Impacts to Nature' section of Green Star Building seeks to ensure that astronomical and ecological values are conserved and protected. LCNZ has emphasised that the single most important environmental conservation technique for outdoor lighting is the astute deployment of smart lighting control systems. This aspect is included in the Green Star update draft, but this needs much greater highlighting owing to the major technical and economic advances in control system functionality in recent times.

LCNZ is keen to continue assistance with lighting specialist inputs to ensure the success of the refreshed Green Star Building rating tool.



## OBTRUSIVE LIGHT

An important update to the AS/NZS *obtrusive outdoor lighting standard AS/NZS 4282:2023 Control of the obtrusive effects of outdoor lighting*, was published in November.

The project working group was Standards Australia committee LG-010 'Obtrusive Effects of Outdoor Lighting'. The Standards Australia commissioning fee levied on NZ stakeholders to retain jointed AS/NZS status was funded by the NZ Transport Agency. NZ interests on the committee were capably represented by Graeme Culling of Betacom Ltd Christchurch, a highly experienced expert in outdoor, road and public lighting. During the public consultation phase LCNZ provided an extensive response, with over 90% of LCNZ recommendations being accepted for inclusion.

The management and mitigation of unintended consequences of light at night is a highly topical and sensitive issue in NZ and worldwide. Optically advanced luminaires, combined with smart controls, and astute lighting design can make great progress towards reducing upward waste light, inappropriate spill light and obtrusive light.

This update includes important modifications to improve the evaluation of lighting impacts across various application scenarios:

- Modifications to improve the accuracy of evaluating lighting of vertical planes.
- Inclusion of illuminated signs and building façades.
- Inclusion of the ambient environment for classifying Environmental Zones
- Inclusion of buffer zones in environmentally sensitive areas.
- Improved methods for evaluating sports venue lighting for TV broadcasts.
- Improved consideration of light at night on plants, animals, and ecosystems.

As many NZ city and regional councils do not yet have well-conceived locally applicable lighting bylaws for environmental protection and neighbourhood nuisance the refreshed AS/NZS 4282:2023 standard could provide a catalyst for the adoption of improved guidelines or rules.

AS/NZS 4282:2023 is available from Standards New Zealand: \$171.90 +GST [here](#)



**GLOBAL LIGHTING ASSOCIATION  
- TAIPEI CONFERENCE**

Lighting Council NZ was a recent participant in the Global Lighting Association board



meeting and annual conference in Taipei, Taiwan. The GLA is the global voice of the lighting Industry and acts as a coordinator of strategies for improving lighting product performance, consumer awareness of good lighting, and for ways towards harmonisation of lighting regulation around the world. The Taipei conference was hosted by the Taiwan Lighting Fixture Export Association, and was a forum for information sharing, discussion, and problem solving among kindred organisations.

Some snapshots of notable international lighting trends are:

- EU and US manufacturers are accelerating post-covid supply chain restructuring, using 'onshoring' and 'friendshoring' initiatives as ways to shorten lead times and risk-manage production in the face of future global pandemics or similar geo-political disruptions.
- System cybersecurity and cyber-resilience measures are big areas of focus for lighting controls suppliers as IoT connected lighting sensors and control systems are now the new normal for commercial lighting applications.
- Environmental management leaders in many countries are pressing for internationally standardised Product Specific rules (PSRs) for lighting products, to enable quantified, 'greenwash free', and globally relevant Environmental Product Declarations (EPDs). EPD program operators could act crudely on recognising important lighting subtleties so lighting associations are now becoming closely involved.



GLA Board in Taipei



GLA Board Chair - Dr Maurice Maes

- 'Green label overload' on LED retrofit lamps is occurring in many markets as government, NGO, and proprietary eco-organisations are often promoting their programs in parallel, creating overlap, clutter, and confusion for consumers.
- Online sales are an ongoing problem area for safety compliance. How is Non-Compliant Product (NCP) surveillance and enforcement handled online? Industry Associations are very active in discussing options with governments.
- The use of Repairability Index (RI) scores to combat product obsolescence of electrical and electronic products is becoming widely popular in Europe, with France leading the way with mandatory implementation.
- The US lighting industry is working on international strategies, including IEC product standardisation, to enable better global alignment and marketability for US lighting products.
- EU and US initiated regulation for a class of hazardous 'forever chemicals' known as PFAS (per and poly fluoroalkyl substances) is spreading worldwide. Disclosure and limitation requirements for supply chains for electrical and electronics products are coming.

The GLA has working groups active in three hot topic priority areas:

- Environmental sustainability for lighting
- Addressing misleading information on lighting
- Light at night

A GLA White Paper on Internationally Harmonised Environmental Product Declarations will be published in early 2024. LCNZ is an active participant this drafting work and seeks to ensure that resultant publications are in accord with New Zealand market needs and wants.



## MEMBER PROFILE



**Paul de Knegt**  
[Elpower Ltd](#)

Paul is Managing Director of Elpower NZ, a small and tight-knit team with a combined total of 100+ years of experience in specialised lighting control gear. Elpower represents in the NZ market an impressive range of premier European brand component suppliers, including: Agilight, BJB, Casambi, eldoLED, Electro Terminal, Inventronics, Osram, Tridonic, and Vossloh.

Since the inception of Elpower in 2015 the lighting world has undergone a major transition in technology and so too has Elpower, seeing many changes with the acceleration of LED as the preferred light source.

While maintaining an important role servicing the industry with much needed legacy components, Elpower has moved to advance the newer technologies including control systems, by providing advice and installation concepts for DALI digital, wireless, and Bluetooth modules, integrating LED lighting into robust and future-proof lighting control solutions. Digital solutions from global supply leaders include tunable white technology which delivers optimised light colour by mimicking the different phases of daylight, an effective option for hospitals, education, and office environments.

LED control gear makes up the core of the Elpower product range. Some lighting OEM's have found that rather than importing control gear, the freedom to choose 'on-demand' from a large NZ stockholding, including peace of mind with statutory safety documentation and compliance marking, is a smart and cost-effective choice for their businesses. Additionally, customised luminaire wiring leads, and precise control gear programming of drive currents are all part of the standard service.

Premier products, in-depth stock levels, problem solving, and fast response times underpin the role of Elpower as its sits behind the scenes supporting the industry with components critical to performance and safety.



## MEMBER PROFILE



**Craig Palmer**  
[Light Source Solutions](#)

Light Source Solutions is a leading provider of lamps, supplying to wholesale channels in New Zealand and Australia by pairing local knowledge with the extensive technical capabilities of LSS partner General Electric. GE has been at the forefront of global lighting innovation, with GE founder Thomas Edison's first practical incandescent lightbulb in 1879. Through to the beginning of the LED revolution in 1962, GE has an outstanding legacy of lighting technology leadership.



In 2015 LSS was appointed as the GE Lighting distributor or both New Zealand and Australia after GE reviewed their distribution model for lighting across the Asia Pacific region. Shifting to a localised distribution structure allowed for more market-focused decision making to better serve the needs of NZ consumers.

Craig has over 25 years in the lamp industry and first joined GE in 2004. He then joined the new LSS company to set up and manage the local business. Located in Parnell Auckland, LSS NZ is fully owned by ASX listed Beacon Lighting Group. As well as ownership of the LSS businesses in New Zealand and Australia, the Beacon Lighting Group operates a network of lighting retail stores and specialty lighting businesses across Australia.

Craig and the team at LSS focus on delivering best-in-class GE LED lamps for lighting retailers, large-format retail stores, and wholesale lighting suppliers across the country, combining the best of GE's global innovations with localised product expertise tailored to NZ's specific requirements.

