

Lightline

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



After being in existence for nearly twenty years, and myself the chairman for nearly ten, I am pleased to write the opening introduction for the first 'official' newsletter from Lighting Council New Zealand (LCNZ).

Originally formed to represent a cluster of lighting companies in discussions with government about energy efficiency and internal New Zealand lighting issues, LCNZ has endured and evolved to become both a 'centre of knowledge' of the local lighting industry, as well as a 'key representative body' on the major local and international standards development organisations for lighting, as well as associated areas such as energy usage and systems interoperability for the built environment.

These twenty years have seen dramatic changes in our industry. From a 'fluorescent and high intensity discharge' world, where most luminaires were manufactured in NZ in a 'local for local' business model, to the current 'LED for the world' model where global manufacturing is the norm. This opening of the doors to the global world of lighting has

also opened our eyes to the influence of global standards for products and for applications. The introduction of LED has also 'digitised' the lighting world, leading us into the world of smart lighting controls, colour tuning and connectivity for interaction with other building services, in ways we never envisaged. On top of this, the rise of societal focal points such as environmental sustainability, dark skies, circular economy and recycling, mean our industry is now a much more complex place.

Below you will see various short articles covering some of the recent LCNZ activities, some tech topics, and also a quick insight into some of our member companies. I hope you find it interesting.

LIGHTING COUNCIL NZ **WHO WE ARE AND WHAT WE DO**

Lighting Council New Zealand (LCNZ) is an industry association with around thirty member companies, representing NZ lighting industry interests to government agencies, regulators, and other industry and professional associations, spanning 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 technical and regulatory support for safety, performance, efficiency and fair trade in lighting.

Established in 2003, the impetus to form NZ's first lighting industry association came from the rapid onrush of new technology and energy regulation for compact fluorescent lamps that was fundamentally changing lighting at that time and creating much contention and confusion among suppliers, designers, contractors and users.

Almost twenty years on, the technology onrush has not abated, with a torrent of new concepts now including smart LED luminaires, colour tuneability, IoT connectivity, digital and wireless controls, all impacting on global trade and NZ's ability to compete and prosper with safe, effective and affordable lighting products.

LCNZ invests in wider NZ interests as it self-funds significant lighting expert representation and leadership on local and international technical standards at NZS, AS/NZS, IEC and ISO levels.

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

GOODBYE ANGELA, HELLO DEBBIE

After ten years of superlative service at LCNZ, members sadly say goodbye to LCNZ Secretary Angela Salmon, who is moving on to a quieter life on the shores of Lake Taupo. Angela leaves a legacy of always being on top of LCNZ organisation and member affairs, and will be much missed.

Debbie Steenson is our new Secretary. Coming from a strong background in commercial and NGOs, Debbie is very well-versed in industry association governance and organisation. Welcome Debbie!



Angela Salmon



Debbie Steenson

LIGHT APPLICATION



GOOD LIGHTING AND DARK SKIES

In recent years there has been a good deal of online and media viewpoints and opinion written about the characteristics of LED outdoor lighting, much of it about light pollution and expressing views on application shortcomings from a human, astronomical and ecological perspective.

To help demystify the topic and to provide practical input, LCNZ and the Illuminating Engineering Society of ANZ (IESANZ) NZ Chapter, have developed NZ focused guidance. This is provided as a joint statement from lighting industry and lighting designers, to advise on the characteristics of LED outdoor lighting and its appropriate application in NZ. This covers the following aspects:

- Benefits of light at night
- Importance of night protection
- Importance of lighting design
- Outdoor lighting in sensitive areas
- Best practice recommendations

Astute and considered application of light at night is vital for enhancing safety and providing function, ambience and economy in urban and regional environments. Equally important is minimising any unwanted effects, such as undue spill light, excessive glare, and skyglow. There is undoubtedly a need for lighting scheme owners, managers, designers, contractors, and suppliers to more diligently consider and act on human, astronomical and ecological effects.

It is hoped that this position statement can assist with heightening awareness and identifying pathways for progress for improved human engagement and environmental performance.

The Position Statement is available on the LCNZ website: [Here](#)

TECHNICAL TIP

SMART LIGHTING CREATES A PRODUCTIVE WORKPLACE....AND SAVES MONEY



Modern workplace lighting systems can improve staff productivity, mood, and comfort, and slash lighting energy use by up to 70% when compared with outdated fluorescent technology.

But it's not only about LED luminaires. There are two sides to energy saving – energy efficiency and energy conservation. Energy efficiency is about how the luminaires effectively convert electricity into light. Energy conservation is about only using the light that is needed, when and where, and no more. This concept has been around forever but has been radically transformed and 'turbo-charged' in the last few years.

Now, with easy to install and economical Bluetooth wireless controls, smartphone enabled LED retrofits can be hyper-efficient, without the installation cost and disruption of old-style hard-wired cabling.

Hire a lighting and controls expert to assess your workplace lighting needs and recommend energy efficient lighting design solutions. Request a cost-benefit analysis of several options, with a whole-of-life investment analysis to evaluate the financial returns. By avoiding ongoing energy and maintenance cost escalations, the payback time is usually remarkably fast.



TECHNOLOGY WHAT IS THE ZHAGA CONSORTIUM?

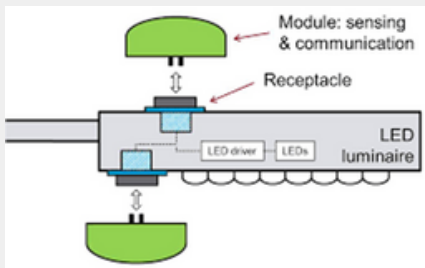
For almost a decade the international Zhaga consortium has been working quietly behind the scenes developing plug and play approaches for modularity and connectivity of components for luminaires, control gear and lighting systems. This is providing a standardised ecosystem of components which, despite each manufacturer's commercially defined characteristics, are interoperable with all Zhaga complying products. Zhaga compliant luminaires are more durable, serviceable, repairable, upgradeable, and future-proof, thus supporting more sustainable circular economy outcomes without consumer risk of single-supplier proprietary lock-in.



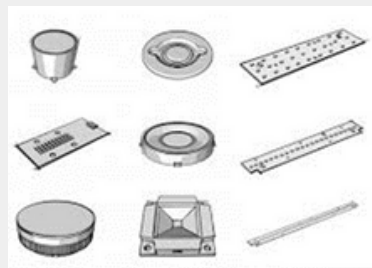
PAS's are prototype international standards that are fast developed publications with a three-year life before they are updated or converted to full IEC International Standards. LED modules for spotlights, rectangular LED arrays, socketable flat LED modules, and IoT sensing and communication interfaces, all are currently in the process of adoption, with another 25+ Books in the pipeline.

Sustainable action in the lighting industry means continuous development of high performance lighting products and solutions, with durable and serviceable products, minimised material use, end of life waste management, and the avoidance of harmful substances.

The earlier-developed Zhaga specifications (called 'Books') have been published for some years and compliant luminaires and components are readily available. These specifications are now moving through the IEC standards adoption process, via the Publicly Available Specification (PAS) process.



Zhaga Book 18 outdoor luminaire sensor modularity



Examples of Zhaga standardised light modules

The new European Commission Single Lighting Regulation (SLR) ecodesign rules are based on principles of modularity and interoperability. There is little doubt that international component and product suppliers will be focusing on EC aligned products for supply to markets beyond the boundaries of the European Union.

More information is on the Zhaga website: [Here](#)



ENVIRONMENTAL IEC MOVES BIG ON PRODUCT CARBON FOOTPRINTING



In early November at the 86th General Assembly in San Francisco, Secretary General and CEO of the International Electrotechnical Commission Philippe Metzger, delivered the pivotal announcement that all IEC electrotechnical standards would move towards requirements for life cycle Product Carbon Footprinting (PCF). This will include standardised methods for environmental product declarations and extend to product digital data access.

The United Nations Framework Convention on Climate Change, Paris Agreement (2015) required international standards organisations to develop standards for achieving net-zero commitments, including those that measure carbon emissions and facilitate use of low-carbon technologies.

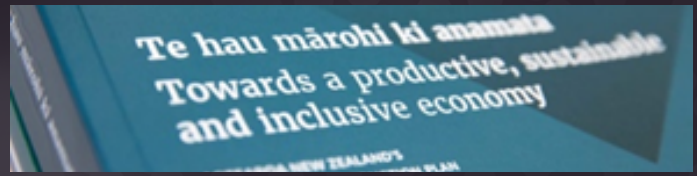
The IEC has now set up a fast-track project working group on *Product carbon footprint data for the electrotechnical sector*, for standardisation of PCF evaluation and documentation in digital format. This will use a Common Data Dictionary (CDD) for data exchange interoperability and will be supplemented with software tools and verification processes. Related future standards will cover Digital Product Passports (DPP) to enable automated commercial trade for complying products, integrated with Building Information Modelling (BIM) to weed-out non-complying product from building supply chains.

The IEC TC 34 lighting committee will shortly start working on developing a Technical Report (TR) for guidance on environmental aspects with a focus on Product Specific Rules (PSR) for environmental performance of lighting.

This signals major change in culture for all electrotechnical product sectors. The big question for NZ is, will NZ building code and energy efficiency regulators adopt the IEC digital platform for NZ monitoring and enforcement?



Philippe Metzger - Secretary General and CEO of IEC Geneva



THE NZ EMISSIONS REDUCTION PLAN

- WHERE TO FROM HERE?

May 2022 saw the release of the New Zealand government Emissions Reduction Plan (ERP). The ERP 'Table of Actions' publication identifies the building and construction related areas of action that are required.

These are:

- Government procurement for buildings
- Emissions from existing buildings
- Construction waste reduction
- Circular economy

The ERP encourages joint venture collaboration among various stakeholders to develop and implement outcomes. LCNZ is keen to participate in such approaches by providing technical advice and internationally aligned strategic input, but large gaps in practical process and a lack of collaborative mechanisms are barriers to progress.

The ERP identifies priority areas, but is silent on tangible and practical implementation points:

- How to undertake these tasks?
- Who should undertake these tasks?
- How will the sectoral parts fit as a coherent whole?
- Who funds the knowledge and application work?

The lack of identified delivery pathways, lack of practical environmental standards and codes, unclear funding and resources, and no apparent mechanisms for participant collaboration all are impediments to implementation.

In Europe, the EC has facilitated implementation plans and EN standards via the CEN and CENELEC standards organisations. EN standards provide the technical backbone for EU eco-design regulation on waste minimisation, material efficiency, circular economy, as well as supporting initiatives such as retrofit and re-manufacture, reverse supply chains, and as-a-service business models. Where are equivalent actions in NZ?

Most important of all, actioning smart procurement for upgrades of government buildings is a crucial early step to promote leadership on astute tender processes to move progress beyond mere headlines.

 **STANDARDS**



A NEW ERA FOR NZ LIGHTING ENERGY

In June this year Standards New Zealand published the new commercial building energy standard NZS 20086:2022 – Light and lighting – Energy performance of lighting in buildings. Based on the ISO/CIE 20086:2019 international standard, this NZS introduces internationally harmonised methods that enable lighting designers, suppliers, auditors, and users to calculate and measure the total energy performance of lighting within a building, and its operational carbon emissions.

NZS 20086 is a complementary standard to augment the existing standard NZS 4243.2 – Energy efficiency – Large buildings - Part 2: Lighting, which is cited in NZ energy legislation and building code regulation. Project funding was provided by the Energy Efficiency and Conservation Authority.

New generation smart adaptive lighting automatically adjusts switching and brightness levels in response to changing conditions such as daylight, occupancy patterns, and user preferences. This technology can dramatically reduce energy consumption over daily, weekly, and seasonal use cycles. Previous energy metrics and calculation methods did not accommodate this approach.

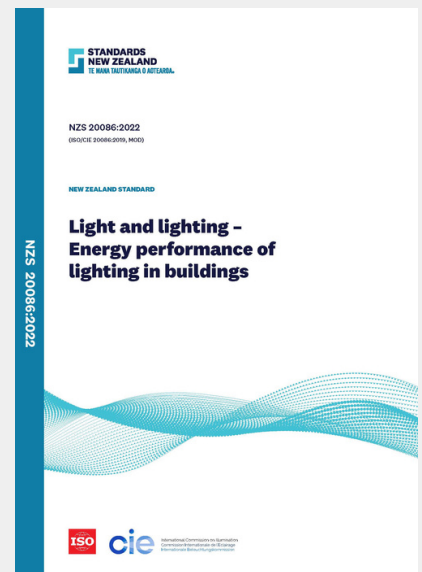
The SNZ expert committee was chaired by LCNZ Executive Director Bryan King, and included LCNZ Chair Chris Byrne, EECA technical analyst Dr Bart Milne, IESANZ Australasian President Greg Williams, and Massey University lighting head Susan Mander.

NZS 20086 provides input to accounting rules for business case development of project Net Present Value (NPV) to substantiate investment in smart control systems. This best-practice energy evaluation approach will dovetail with the forthcoming “super-standard” ISO 52000 Energy Performance of Buildings series for whole-of-building energy and carbon emissions reporting.

The standard will also be instrumental in assisting NZ public policy objectives with reporting methods to support the NZ Carbon Neutral Government Programme (CNGP) and the Building for Climate Change (BfCC) programme.

More information is on the SNZ website: [Here](#)

The new standard can be purchased from SNZ: [Here](#)



STANDARDS



NZ LIGHTING EXPERT AWARDED THE IEC '1906 AWARD'

Every year the International Electrotechnical Commission (IEC) Geneva, honours the contributions of IEC experts with the IEC '1906 Award' in recognition of exceptional achievement to advance the work of the Commission. The 1906 Award was created to commemorate the IEC's year of foundation, by icons of innovation, Kelvin, Edison and Siemens, when Lord Kelvin was elected as the first president.

This year, LCNZ Executive Director Bryan King received the IEC 1906 Award in recognition of achievement in environmental standardisation for lighting products. Bryan's leadership in IEC Lighting Technical Committee TC 34 is organising and developing the first internationally standardised guidance for environmental engineering for lighting.

This technical guidance will be of much significance for sustainable lighting application, by providing methods for implementing more circular, low-carbon, and environmentally astute lighting and building outcomes.

The award presentation took place at the recent IEC General Meeting held in San Francisco.

Pictured - Left to right: Peter Berry (Chair of the IEC NZ National Committee), Bryan King, Andreas Scholz (Chair of IEC Technical Committee TC 34 Lighting), and Steve Lowes (Senior Advisor International Engagement Standards New Zealand).

See article on Standards NZ website: [Here](#)



STANDARDS

INTERIOR LIGHTING DESIGN - INTERNATIONAL OR NOT?

The interior lighting design standard for commercial buildings AS/NZS 1680.1:2006 Interior and workplace lighting, Part 1: General principles and recommendation, is now sixteen years old and is very obsolete as it pre-dates LED light sources and adaptive lighting and smart controls.

The update of AS/NZS 1680.1 is now an evolving project within Standards Australia LG-001 and the Kiwi experts on this committee are LCNZ Chair Chris Byrne (representing LCNZ) and lighting designer Ewen Café (representing IESANZ).

The initial Standards Australia project proposal did not seek to align the AS/NZS update with the international commercial interior lighting standard ISO 8995-1. LCNZ has since lobbied the committee for the ISO standard to be properly evaluated and considered for adoption or adaption, and this request has been accepted.

ISO 8995-1 is about to undergo a revision and this will be monitored by the LG-001 committee. LCNZ members who import and supply commercial lighting luminaires that are internationally harmonised are strongly in favour of alignment with ISO 8995-1.

Supporting this approach, the NZ ISO TC 274 NZ National Committee Light and Lighting have learned that there is an ISO strategic plan in place for future building performance to be assessed as an integrated whole. This is to be able to calculate and compare overall building performance for all services to benchmark performance (visual, energy, carbon) and to evaluate technology investment ROI, and life cycle value for money.

There is a need to coordinate the various standards for design and application to harmonise the methodologies of all energy using sectors of building services engineering (lighting, heating, cooling, acoustics, security, access). This is being done by the ISO in a coherent manner, inclusive of the interior lighting standard ISO 8995-1. This will enable ISO aligned countries to access and use global methods and software packages, at low cost, for design and analytical use, and to ensure that luminaires fit with lumen packages aligned with international lighting design norms.

MEMBER PROFILES



**Justine & Chris
Hickie**

[Eurotech Lighting](#)

Eurotech Lighting is a 100% New Zealand family-owned business, which has been producing lighting products for over fifty years.



Established in 1966 by David and Raewyn Chevin, who cultivated the successful business concept from a poultry shed and a very small bank loan.

Eurotech continues as a family business, now headed by David and Raewyn's daughter Justine Hickie, and her husband Chris Hickie. A keen entrepreneur with a product development background, Justine says "Our job is to understand the market, and people's challenges with lighting, and then produce lighting that provides simple solutions that work". The Eurotech aim is to deliver the latest design and technology advancements without breaking the bank.

Justine observes "In NZ there is a distinct lack of collaboration in lighting implementation, the building design, supply and install parties usually only interact at the transactional level, not accommodating the Q+A and open communication that could create a much greater value-add for the finished lighting outcomes. With fresh-thinking and more flexibility in business models and construction contracts, it's possible to push the boundaries to achieve markedly better results".

Justine says it's great to be post-COVID and visiting suppliers and customers face to face, and again building the personal linkages needed to grow the business.



MEMBER PROFILES



David Powley

[Bright Light NZ](#)

BRIGHTLIGHT

Bright Light New Zealand was established in 2004 and has evolved into one of New Zealand's largest specialist suppliers of linear LED lighting products, with a strong presence in residential, commercial, hospitality, and marine markets.

Products are designed in-house at the company's R&D facility, overseen by Managing Director and founder David Powley, with a focus on easy-to-install LED lighting solutions.

What do you currently see as your main barrier to growing your business?

"Our Business is currently seeing similar issues to many other businesses in New Zealand. Staffing, supply chain and general inflation all being top of mind over the past couple of years. New product development has also slowed due to extended lead times for new tooling for custom products. It's great the main supply hubs such as Asia are re-opening".

What do you see as opportunities for your business going forward?

"We see there are new opportunities and believe in the necessity to do things differently and try new ways of operating in an ever-changing business environment. A large proportion of our product portfolio is already made in New Zealand, and we would like to grow this as local business becomes more efficient and competitive with world imports".

Bright Light operates offices and production facilities in Auckland, Christchurch, and in Shenzhen China, and sells through an approved network of NZ lighting suppliers and electrical wholesalers.



LCNZ EXECUTIVE TEAM INTRO

CHRIS BYRNE (CHAIR)

Forty years in the lighting industry that's a long time! I started off as an engineering cadet and progressed through lighting designer, product designer, sales engineer, sales manager, training manager, marketing manager, and now as Managing Director with a multi-national Zumtobel Group. In both private and corporate companies in NZ and Australia, my roles have enabled me to travel and experience the international lighting world. I am a representative on NZS and AS/NZS standards committees and am the NZ Head of Delegation for the ISO TC 274 Light and Lighting committee. I am fortunate to have been the Chair of LCNZ for the last nine years and was Deputy Chair for three years before that.



CRAIG PALMER (DEPUTY CHAIR)

I have over twenty years in sales and management in the NZ lighting industry. My primary focus has been on lamps, working with global brands including GE, Osram, Sylvania and Tungsram. My current role is managing the NZ business for Light Source Solutions, the GE licenced partner for ANZ. I first joined LCNZ back in 2004 whilst Country Manager for GE Lighting and have been on the executive committee for more than a decade. It is pleasing to witness the continued passion of the LCNZ team, and to be involved in work which delivers for both the lighting Industry and the broader NZ marketplace.



BRENDAN EVERETT

I am the Managing Director of Halcyon Lighting and have been a LCNZ executive committee member for the last three years. I studied and worked in graphic design before entering the lighting world in 2013.



This was fortuitous timing as this was the early stages of LED adoption, and I am now passionate about luminaire design and development. I have worn many hats, from sales admin, marketing and design, general manager, and eventually to Managing Director, taking over the reins from the now retired Royce Everett, who was on the LCNZ executive committee for over a decade. Royce and Jenni Everett remain directors and in August this year Halcyon celebrated its forty-year anniversary.



DEAN FULFORD

I have had 35 years' experience in the lighting industry and gained an insight into the industry with four years in Hong Kong with a European manufacturer and distributor. Since this time I have worked in the NZ lighting industry

within a vertically integrated business model with Lighting Direct, focused on residential lighting. As Managing Director, key areas of focus are team leadership, business strategy, product design, marketing and logistics. I am fortunate to have had extensive world travel with visiting business connections and have gained insights into a truly innovative industry.



GERARD WOODS

I formed Switch Lighting in 2009 and was initially involved in product development, but as the company has grown, my roles have migrated through sales to full time Managing Director. I am still heavily involved in product

development, an aspect true to my roots. My career started as a mechanical design engineer and project manager in heavy engineering for mining, materials handling, and timber mills, and I later ran an engineering consultancy for the timber Industry. I have been a member of the Australian Standards committee EL-041 since 2014. My tenure on the LCNZ executive committee started in 2016, and it has been great to see the role of LCNZ increase over these last few years.

PAUL DE KNEGT

After completing a degree in electrical and electronic engineering at Auckland University, I soon joined lighting component supplier Atco Controls. That was way back in the mid-eighties! Atco Controls transitioned into TridonicAtco and then Tridonic NZ where I was Managing Director until 2015 when I went private, forming Elpower NZ. That's many more years importing and distributing lighting control equipment and accessories ... more years than a young man could admit! In 2003 I founded LCNZ, along with Bryan King and Dean Griffin. Since then, I have been on the executive committee spending some of those years as Chair and Deputy Chair.



CHRIS MORRIS

I am an experienced general manager with a strong background in the electrical and electronic manufacturing industry. My role is NZ Country Leader and Professional Channel GM at Signify. I have a BCom in marketing from Lincoln University and my previous roles have encompassed advertising, marketing strategy, construction management, and business-to-business sales for the commercial construction community in NZ, UK and Australia. In a fast-changing digital world, I lead the Signify team that is at the forefront of developing connected smart lighting solutions for NZ end-users which extend building services into areas well beyond illumination.

