Annual Report

2018

DLC

Bringing Efficiency to Light℠

DLC Board of Directors

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Message from the Executive Director

2018 was a period of dynamic growth for the LED industry. Lighting products continue to evolve, their functionalities continue to multiply, and new manufacturers continue to enter the market. The technology is changing, and so is the industry.

At the DLC, we are pleased to work with our members to establish performance thresholds across more than 91 product categories to drive high quality, energy efficient lighting. In addition to expanded qualified products lists, in 2018, the DLC has developed research on savings opportunities, a networked lighting controls training curriculum, and program guidance materials for utility efficiency programs. Our team of professionals consistently demonstrates a dedication to quality work, transparency, and value for stakeholders and society.

In 2019, the DLC will establish more comprehensive specifications, develop tools that help our partners access DLC resources more easily, and strategically position the DLC as a leader in the green building industry.

We look forward to another outstanding year of collective achievements, and to the many exciting projects we have planned for 2019.
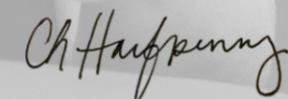
CHRISTINA HALFPENNY
Executive Director

2018 by the Numbers

34%
Efficacy increase in products on the SSL QPL in 5 years

1.8k
Manufacturers represented on the SSL QPL

28
Manufacturers represented on the NLC QPL

91
Total lighting categories eligible for qualification, including seven new categories in 2018

1st
Industry QPL and specification for efficient horticultural lighting

74
Utility Member Programs across the US and Canada

$2B
Utility program budgets that influence the commercial lighting rebate market

DLC Mission

The DesignLights Consortium is a non-profit organization accelerating the widespread adoption of high-performance commercial lighting. The DLC promotes high-quality, energy-efficient lighting in collaboration with energy efficiency and lighting industry stakeholders. Through our partnerships, the DLC establishes product quality specifications, facilitates thought leadership, and provides information, education, tools and technical expertise.

Solid-State Lighting Program

The SSL QPL is the largest and most influential qualified products list for lighting, and the largest of the DLC's resources. Consistently updated Technical Requirements save time and resources for member program staff and act as a mechanism for the DLC and its utility members to influence the quality and efficacy of commercial LED lighting products available in North America.

With projected C&I lighting savings potential peaking at 20 TWh per year through 2035, **the DLC QPL and associated programs stand to facilitate continued annual energy savings more than four times the yearly energy production of the Hoover Dam**. Given that, in 2016, LED market penetration in the United States remained below 13%, energy savings still to be captured through continued utility programming and use of the SSL QPL are massive, especially as lighting accounts for approximately 17% of the country's total annual energy expenditure.

In 2018, the DLC released **two Technical Requirements updates** that added **seven eligible categories** of lighting to the QPL. These updates expanded upon the DLC's wide variety of eligible lighting types, bringing the total to 91 categories that span functions from indoor lighting and street lighting to garage lighting and refrigerator case lighting. The 2018 expansion included **color-tunable lighting, lighting with field-adjustable light output and distribution, and DC and PoE lighting** - new innovations in lighting techology that can be effective solutions for energy savings as well as lighting performance.

Additionally, to ensure the continued validity of the QPL, the DLC completed its **third round of surveillance testing** in 2018. The surveillance testing program further enhances the rigor of what it means to be listed on the DLC QPL, and will continue to strengthen the QPL's value in 2019 and beyond.

Networked Lighting Controls Program

The DLC's Networked Lighting Controls (NLC) program is a suite of tools and resources to enable widespread adoption of lighting controls in commercial buildings, the center of which is the Networked Lighting Controls Qualified Products List. With the **third version of the specification** published and **40th system qualified** in 2018, the list provides reliable, up-to-date information on systems from virtually all major NLC manufacturers, reduces confusion in the marketplace, and facilitates the installation of NLCs in commercial buildings. The list is currently **used by approximately 50 utility energy efficiency programs in the US and Canada** to set incentives and accelerate adoption of these energy saving systems.

NLC Technical Requirements V3.0 included DC and PoE systems as eligible for qualification and introduced the DLC's multi-year plans for requiring energy monitoring and cybersecurity, critical features for widespread uptake of the technology. In addition to ensuring that listed systems meet certain required criteria, the Technical Requirements provide comprehensive documentation on the capabilties of each system, such as whether a system enables scheduling of lighting or personal control of an individual environment, and whether it is integrable with building management systems, HVAC, APIs, or the Cloud.

One of the biggest barriers to adoption of NLCs is lack of education for installers and contractors. To address this, the DLC **deployed 33 utility-hosted in-person lighting controls installation training programs in 2018, reaching approximately 660 individual trade allies and contractors across the US**. To achieve scale in the US and Canada, the DLC also completed development of an online version of the program, which launched in Q4 of 2018. Through education, the DLC hopes to capture NLCs' potential to boost energy savings of LED projects by up to 47 percent.

Finally, the DLC began developing an **online, searchable database** to replace the Excel NLC QPL. This tool will make it easier and faster to verify listed systems, find information about system capabilities, compare system functionality, and see QPL data in real time. It is expected to launch in 2019.

Horticultural Lighting Program

In 2018, the DLC launched the industry's **first horticultural lighting specification and Qualified Products List for energy efficient horticultural lighting**. The new horticultural lighting program and QPL provides a sorely-needed resource for utility efficiency programs to use as a baseline for their horticultural lighting incentive programs and acts as a tool for selection of energy efficient indoor lighting options.

A December 2017 report prepared by Navigant Consulting, Inc. for the US Department of Energy (DOE) put the annual electricity consumption of US horticultural lighting installations at 5.9 terawatt hours (TWh), equal to the annual electricity usage of approximately 550,000 US households. The report estimated that consumption will increase between 15 and 25 percent per year as more indoor agricultural operations come on line. Switching to all LED technology, however, could reduce the sector's annual electricity consumption by 40 percent, a savings of approximately $240 million.

The DLC Horticultural Technical Requirements provide guidance for energy efficient indoor lighting options while sorting through poorly understood science and misleading marketing claims. The DLC expects to qualify **between 400 and 1,000 horticultural fixtures by 2020**. The horticultural program also includes the DLC's first **fully-online application processing portal**, drastically streamlining the qualification process for manufacturers and review staff. The DLC plans to apply this technology to both its solid-state lighting and networked lighting controls application portals in the future.

The DLC is excited to continue to develop its horticultural lighting program, and is pushing the envelope to advance best practices in the application of light to plants through research and updated specifications in the coming years.

Additional accomplishments

- Published "Energy Savings Potential of DLC Solid-State Lighting and Networked Lighting Controls," showing that a path exists to maintain C&I lighting portfolios at or above current levels until 2030.

- Published a utility program guidance report that identifies barriers to deployment of NLCs and documents available resources to facilitate adoption.

- Launched a publicly-available DLC API that gives users access to valuable QPL information and provides autonomy in data analysis.

- Launched a DLC blog to provide insight into market trends and energy savings opportunities.

- Hosted two successful industry-wide events: the 7th annual Stakeholder Meeting in Boston, MA and the 3rd annual Controls Summit in San Ramon, CA.

What lies ahead

- Publication of SSL Technical Requirements V5.0, which will continue to accelerate broad scale energy savings by improving the quality of light and controllability of DLC listed products.

- Publication of NLC Technical Requirements V4.0, which addresses important issues for market acceptance, such as energy monitoring and cybersecurity, and allows for qualification of BMS systems with lighting controls capabilities.

"THE DLC CONTINUES TO BE THE CENTRAL RESOURCE FOR THE LIGHTING INDUSTRY AND UTILITIES IN DESIGNING ENERGY EFFICIENT LIGHTING INCENTIVE PROGRAMS AND A KEY INDICATOR FOR LIGHTING PURCHASERS SEEKING HIGH-PERFORMING PRODUCTS."

-Paul Gray, Sr. Director Of Horticulture Sales, MaxLite

Financials

The majority of DLC revenue comes from QPL application fees, while most of the expenses are dedicated to application processing and maintainence and development of the DLC's many IT systems. Other annual expenses include the DLC Stakeholder Meeting and Controls Summit, development of industry resources, and the deployment of the DLC's training programs.

2018 REVENUE
$11,751,851
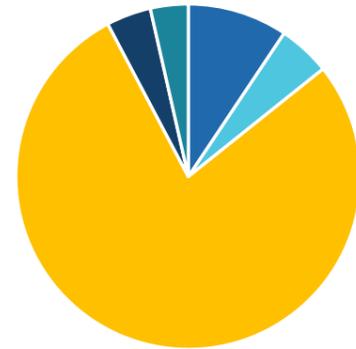
- Membership Fees
- Lighting Controls QPL
- Solid-State Lighting QPL
- Trainings
- Other

2018 EXPENSES
$10,655,202
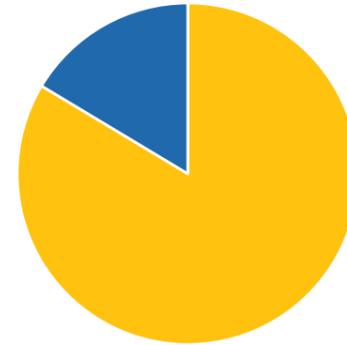
- General & Administration
- Programs (Solid-State Lighting QPL, Lighting Controls QPL, Member Program, Trainings, etc.)