

Toronto leads with LEDiscovery

A group of organizations gathered at this event to discuss the future of energy-efficient LED lighting, writes **Brian Owen**, our Canadian Columnist.

As LED lighting continues to be used for outdoor public spaces, there is great value in bringing together the organizations that have already participated in such lighting programs. This was one of the aims of the LEDiscovery event, held March 25-26 in Toronto, Canada. Hosted by greenTbiz of the Toronto Association of Business Improvement Areas (TABIA) and the Toronto Atmospheric Fund (TAF), the event was a resounding success. In total, 23 manufacturers and agents of LED and adaptive lighting control technology products met over two days with close to 200 potential buyers and specifiers from the private and public sectors.

Billed as “LEDiscovery ... The Future Vision of Lighting for Public Spaces — Using LED and Lighting Controls to Reduce Energy,” the event was held during the week leading up to Earth Hour. Organized by the World Wildlife Fund (WWF), this event required a commitment to turn off lighting for one hour in participating cities throughout the world. Although Earth Hour was the largest controlled lighting blackout since the Edison invention itself, new technology will hopefully prevent the real thing from occurring, even under the strain of ever-increasing electricity demand. Although the best kilowatt-hour is one not used, the alternative is to explore new technologies that will drastically reduce electricity consumption. Accounting for 20% of global electricity consumption, lighting is definitely at the forefront for change, which can be achieved using LEDs and lighting control technology. Earth Hour’s goal may have been “turn off the lights,” but LEDiscovery’s aim was “turn on the LEDs”.

LEDiscovery program

The first day of LEDiscovery was open to attendees from the private sector — including architects, building and business owners, commercial developers, interior designers, property managers and specifiers — who were able to view the exhibits and speak directly with representatives regarding proposed applications and questions about the technologies. Largely being a public awareness and education forum, the event included “State of the Solid State” presentations to inform attendees about technology progress and developments, as well as what to look for and what to “look out” for. One of the key and recurring items of discussion centered on regulations and standards, such as the Energy Star criteria for SSL.

The second day was by invitation and reserved for attendees from the public sector representing various agencies, boards and commissions of municipalities, as well as academic, social development, and healthcare institutions from the City of Toronto and surrounding municipalities, and also provincial government agencies. Thirteen municipalities and 30 agencies or sector organizations were represented. Manufacturers and agents were again invited to display products and make presentations to this audience in a plenary session. Attendees were then able to select manufacturers with whom they wished to have further discussion. Both manufacturers and attendees commented positively about the quality of time invested at the



Front L to R: Mike Bergren, City of Ann Arbor; Daniel Howe, City of Raleigh; Chantal Brundage, greenTbiz; Andre Brix, City of Ann Arbor; Mary Pickering, Toronto Atmospheric Fund; and Michael Cavallo, Clinton Climate Initiative (CCI.) Back L to R: David Alexander, City of Welland; Peter Strasser, International Dark-Sky Association; Brian Owen, greenTbiz & LED City Toronto; and Cailey Gibson, CCI. Photo courtesy of Ben Marans.

event. It was also observed that manufacturers were communicating with each other and quite possibly developing strategic alliances and partnerships.

LED City Summit

During LEDiscovery, greenTbiz and TABIA, who facilitate the LED City Toronto initiative, hosted the first LED City Summit sponsored by Cree. Dan Howe, Assistant City Manager of Raleigh, discussed the development of LED City and the need to understand financing to overcome first costs. Mike Bergren and Andrew Brix of Ann Arbor, Michigan, US, described their city’s moratorium on public lighting, aimed at helping to keep escalating lighting operation and maintenance costs under control. While attention has shifted to LEDs, Ann Arbor has developed a “Lighting Bank Policy,” where developers pay into a fund, buying credits, similar to emissions trading. This is reinvested in retrofitting existing public lighting with more efficient lighting technology, such as LEDs.

Dave Ferguson reviewed Welland, Ontario’s current LED project and reported that after public consultation and surveying conducted by greenTbiz, 73% of the public were in favour of proceeding with LED street lighting. He also noted that Welland would be including LED lighting in a downtown redevelopment plan as well as in new sub-divisions through developer participation.

Michael Cavallo, Domain Director for Lighting for the Clinton Climate Initiative (CCI) described the role of the CCI and the devel-

opment of municipal purchasing initiatives with manufacturers. Peter Strasser of the International Dark-Sky Association (IDA) reminded everyone of the importance of considering light pollution and light trespass issues and was very positive with respect to LED in outdoor lighting as the technology allowed for 'dark-sky friendly' luminaire development.

LightSavers

LEDDiscovery also saw the launch of LightSavers, a program developed by the Toronto Atmospheric Fund that will explore, foster, and pilot the use of efficient LED lighting and lighting controls in public spaces in order to reduce electricity consumption and greenhouse gas (GHG) emissions. Future plans of the LightSavers program include the development of a consortium of manufacturers and municipalities and their agencies to achieve these objectives. This consortium will work in partnership to test and accelerate market transformation for advanced outdoor lighting products that promise electricity reductions of 50% or more. Agencies and municipalities will be invited to participate in the development of technology pilots.

A LightSavers Symposium will be held in the Fall to bring agencies and municipalities together to discuss LED and adaptive lighting pilots that are being undertaken locally, regionally and internationally. Presenters will discuss technology, and review potential business case scenarios and innovative financing opportunities. Contact the author for further details and updates.

Manufacturers

While the focus of LEDDiscovery and LightSavers is primarily LED

lighting for outdoor public spaces, manufacturers displayed both indoor and outdoor products. Architects, interior designers, and property managers were able to see the LED MR16 developed by CRS Electronics of Welland, Ontario for the Palace Pier Condominium project in Toronto, the first building in North America using LEDs as its primary lighting sources in the corridors.

GO Lighting exhibited its controllable flat panel LED lighting, a great example of combining LED and intelligent lighting controls. The units can be adjusted for both brightness and color temperature. Infocore, representing Lumecon, displayed the Relume product employed in the Welland street light installation. Electromega showed both the Leotek product installed at the Exhibition Place pilot and the Carmanah PV Solar LED luminaire installed in Phin Park (both locations in Toronto). One notable luminaire was the decorative street light from King Luminaire/Stresscrete of Burlington, Ontario. Code-named the K118R, the fixture is a decorative historical design based upon the King Luminaire Washington series. The fixture utilizes multiple arrays of LEDs to help achieve various IES distribution patterns and a unique baffle configuration to keep the up-light component below 14% as well as achieve a cut-off angle of 70 degrees to reduce glare.

About the author

Brian Owen is the Program Advisor to greenTbiz (www.greenTbiz.org), which facilitates the LED City Toronto initiative. He is actively involved in the development and operation of energy conservation programs for government, municipalities, and utilities. Email: Brian@greenTbiz.org

ACTIVITIES

1. The 5th China International Exhibition on Solid State Lighting
2. The 5th China International Forum on Solid State Lighting
3. The 2nd National SSL Innovation Contest (2008)
4. The 3rd News Release on Novel Technologies, Equipment, Products and Materials
5. International SSL Standards & Measurements Workshop
6. SSL Patents Workshop
7. International MOCVD Technology Short Course

CHINA SSL

July 24-26, 2008

5th China International Exhibition & Forum on Solid State Lighting

(2008Shenzhen)

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Shenzhen Convention & Exhibition Center, China

CONTACT FOR FORUM
Tel: +86-10-82512307 / 51727119 / 51626257 ext.19
Fax: +86-10-51727120
E-mail: lint@china-led.net

CONTACT FOR EXHIBITION
Tel: +86-755-82848853 / 82848861
Fax: +86-755-82848854
E-mail: czsh@chtfc.com