# BC HYDRO POWER SMART NEW CONSTRUCTION PROGRAM ADVANCED LIGHTING DESIGN BEYOND CODE

The BC Hydro Power Smart New Construction Program (NCP) team cordially invites you to a complimentary half-day "Advanced Lighting Design Beyond Code" training session intended for those involved in lighting design for new commercial retail, office and institutional buildings. The Power Smart NCP provides incentives for projects in the early design stage to implement energy-efficient lighting design measures.

#### **WHO SHOULD ATTEND:**

Power Smart Alliance members, or those who would like to participate in the New Construction Program lighting incentive offer. Practicing lighting designers and electrical engineers committed to designing contemporary energy-efficient lighting systems. Participants are eligible to declare three LEU credits with NCQLP for this course.

### HALF-DAY WORKSHOP: THURSDAY, JANUARY 30, 2014:

- Brief updates on the current status and future development of the New Construction Program.
- Brief overview of the new BC Building Code and the energy standard requirements for lighting systems effective December 20, 2013.
- Showcase advanced lighting design that exceeds the ANSI/ASHRAE/IES Standard 90.1-2010 ("2010 version of 90.1") with a focus on new construction projects and applications.

#### **HOW TO REGISTER:**

Limited space is available. Please confirm your attendance by sending email to alliance@bchydro.com.

#### AGENDA

- 8:00 a.m. REGISTRATION & CONTINENTIAL BREAKFAST
- 8:30 a.m. POWER SMART NEW CONSTRUCTION PROGRAM AND BUILDING CODE Oscar Ceron will provide brief overview of the Power Smart New Construction Program, results and lighting incentives available for customers. Nikolay Smirnov will provide a brief overview of the new BC Building Code and the energy standard requirements for lighting systems.

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### LOCATION:

BC Hydro Corporate Office 333 Dunsmuir Street, Vancouver (near "Stadium" Skytrain Station)

Room: Dunsmuir Auditorium on 2nd Floor (DUN02)

Please sign-in as visitor at security desk.

#### 8:50 a.m. DESIGN STRATEGIES BEYOND ALLOWABLE LIGHTING POWER DENSITY

Antonio Giacobbe will review the maximum allowable lighting power density (LPD) in 2010 version of 90.1 for typical space types in the building types listed below. Building method and space-by-space LPDs will be examined. Showcase some of the best practices for lighting design: demonstrating how much energy can be saved, exceeding allowable LPDs, while providing appropriate illumination levels.

Design examples for the following areas:

- Commercial Office: private office, open office, public space
- Retail: big box, grocery, department store
- Healthcare: patient suites, exam rooms, treatment rooms, public space.

#### 10:00 a.m. BREAK AND NETWORK

10:20 a.m. STRATEGIES FOR EXCEEDING LIGHTING CONTROL REQUIREMENTS Review of 2010 version of 90.1 lighting controls requirements for typical space types in the building types listed below. Look at how to integrate the lighting control requirements into the lighting designs examined in earlier session.

Design examples for the following areas:

- Commercial Office: private office, open office, public space
- Retail: big box, grocery, department store
- Healthcare: patient suites, exam rooms, treatment rooms, public space.

11:15 a.m. EXCEEDING ALLOWABLE LPD AND LIGHTING CONTROL REQUIREMENTS FOR EXTERIOR APPLICATIONS Examine baseline outdoor lighting scenario in contrast to a modified version that exceeds LPD allowance requirements and meets the required controls mandated by 2010 version of 90.1.

- 12:00 a.m. Q&A
- 12:15 p.m. LUNCH AND NETWORK
- 1:00 p.m. END OF WORKSHOP

#### PRESENTERS

**Oscar Ceron** is a New Construction Program Manager at BC Hydro Power Smart. He has spent the last 5 years in Power Smart managing and promoting energy efficiency programs. Prior to joining BC Hydro, Oscar held various roles in Marketing, Communications and Product Management at Attachmate, Creo and Kodak.

**Nikolay Smirnov** is a Senior Engineer in BC Hydro Power Smart with over 20 years of experience in lighting engineering, lighting design and computer lighting modeling and visualization. Nikolay's experience includes lighting and electrical design for industrial and commercial applications, project management, developing of energy-efficient solutions for various lighting projects.

Antonio Giacobbe, is a Regional Specifications Engineer for Osram Sylvania. Antonio performs the duties of a Sales Engineer and Technical Product Specialist while working with Specifiers, End-users and Original Equipment Manufacturers in the new construction, renovation and retrofit markets. As a Regional Specifications Engineer he supports sales channels including Trade, OEM / Specialty Markets and Sylvania Lighting Services.

Prior to joining Osram Sylvania, Antonio was the Senior Lighting Designer for McKinstry Company in Seattle where he managed the lighting group in the Energy Services Division. Antonio has been directly involved with the design and project development of lighting projects impacting more than 8 million square feet of developed space over a span of nine years. Antonio holds a Bachelor of Science in Mechanical Engineering Degree from the University of Washington, and has been Lighting Certified (LC) by the NCQLP since 2004. Antonio has participated with the IES at the section level for many years, and a past Seattle Section President and currently serves as Vice Chair to 6th District of the IES.

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