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Backgrounder

## **NATIONAL ADVANCED LIGHTING CONTROLS TRAINING PROGRAM**

Using advanced digital systems to control interior and exterior lighting, the operators of buildings, campuses and industrial complexes can reduce lighting costs by 25 per cent or more. Advanced lighting controls also reduce maintenance costs because fixture replacement is less frequent, and they provide greater control and comfort for building occupants.

Typical advanced lighting control systems make use of dimmers, occupancy sensors and load scheduling. Systems can be programmed to self-adjust as daily demand patterns shift, and to provide the desired lighting environment for every interior or exterior space.

On a campus-wide basis, careful planning and installation of advanced lighting controls has reduced energy costs related to lighting by as much as 75 per cent (Toronto General Hospital) or even 90 per cent (University of California at Davis.)

However, these systems may be prone to failure if they are improperly installed or maintained. Advanced lighting controls are complicated, and they need trained people to make them work.

The National Advanced Lighting Controls Training Program (NALCTP) is designed for qualified electricians who understand electrical theory and code. The course combines 10 hours of preparatory study, 10 hours of in-class instruction and 40 hours of supervised hands-on practice with specially-designed practice boards.

With support from the California-based NALCTP training consortium, BC Hydro and EJTC Enterprises Inc. (E2 Inc.) have brought NALCTP to Canada and adapted it for the Canadian electrical code. The course will be offered to electricians who carry provincial or territorial certification.

B.C.'s building codes already require the installation of a base level of lighting controls in new construction. Across North America, codes and standards are changing to favour increasingly advanced systems. Electrical contractors and tradespeople have a market opportunity. With NALCTP, electricians will be trained in the strategies they need to make the best lighting control decisions.

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Founding signatories in the original California Advanced Lighting Controls Training Program (2010) were:

- California State Labor Management Cooperation Committee for the International Brotherhood of Electrical Workers and the National Electrical Contractors Association (LMCC/IBEW-NECA)
- California Community College System
- California Energy Commission
- California Lighting Technology Center, University of California, Davis
- Pacific Gas and Electric (PG&E)
- Southern California Edison (SCE)
- San Diego Gas and Electric (SDG&E)
- Sacramento Municipal Utility District (SMUD)