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SENT VIA EMAIL

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RE: NLCAA Application for Approval as a Lighting Control Acceptance Test Technician Certification Provider

Director Oglesby and Mr. Commins:

I am writing on behalf of the National Electrical Contractors Association (NECA) in regard to the National Lighting Contractors Association of America's (NLCAA) application to be approved by the California Energy Commission as a Lighting Control Acceptance Test Technician Certification Provider. NECA has supported the Commission's efforts to develop a certification program to ensure that acceptance tests are performed by qualified, trained personnel. However, for certification to be worthwhile, the Commission must ensure that it holds the certification providers to the highest standards feasible.

Properly installed and functioning advanced lighting controls are an essential component to meeting California's energy efficiency goals. Lighting accounts for almost 40% of a commercial building's electrical use. The Commission requires acceptance tests of newly installed advanced lighting controls in

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nonresidential buildings to ensure they are installed and operating correctly so they achieve expected energy savings.

The 2013 Energy Code required certification for Lighting Control Acceptance Test Technicians in response to testimony that training and quality control of acceptance test technicians was needed to make the acceptance test requirements meaningful, reliable and cost-effective. Training and quality control of certified technicians is the responsibility of the acceptance test technician certification provider. Moreover, acceptance test technicians are not required to be independent and thus may work for the building contractor. Accordingly, it is essential that a provider be required to demonstrate it can ensure the reliability of the acceptance test technicians that they certify.

We urge the Commission to ensure that provider applications are sufficiently detailed and rigorous to demonstrate a strong likelihood for success. In general we are concerned about four aspects of any provider's program: (1) ensuring the provider has sufficient experience, reputation and qualifications to demonstrate a likelihood of success; (2) ensuring certification applicants have three years of relevant, verified professional experience in lighting controls; (3) ensuring training covers all necessary topics and testing is validated for subject matter and bias; and (4) ensuring that providers require and implement rigorous quality assurance procedures to ensure a high level of performance and reliability.

Because certified acceptance testing is a new program and will result in additional building costs, it is critical that it starts off with the highest quality acceptance test technicians and with sufficient oversight to demonstrate its reliability and effectiveness. NECA has concerns that the NLCAA application fails to ensure this will occur. NECA requests that the Commission only approves the most qualified certification providers.

We have the following concern and comment regarding NLCAA as an association and what is contained in their application:

1. **NLCAA HAS NOT DEMONSTRATED IT HAS THE EXPERIENCE, REPUTATION OR QUALIFICATIONS TO BE A RELIABLE AND CAPABLE CERTIFICATION PROVIDER**

   NLCAA lacks sufficient history, qualifications or experience to demonstrate that it is capable of reliably and effectively running a certification program. NLCAA is a brand new organization formed in 2013 to provide classes for nonresidential lighting technicians. NLCAA's program has not been vetted by any utilities, lighting control manufacturers, or lighting control technology experts. In contrast, CALCTP, the organization that the Commission prequalified as a lighting control acceptance test technician certification provider in its regulations, has seven years of experience training and certifying advanced lighting control installers and is overseen by an advisory board consisting of representatives of all of the major utilities, the Chancellor's Office of the Community College System and the California Lighting Technology Center-UC Davis.

   The Commission should only approve certification providers that have demonstrated experience, reputation and success in running similar programs. NLCAA lacks these qualities.

2. **NLCAA APPLICATION FAILS TO DEMONSTRATE RELIABILITY AND COMPETENCE**

   NLCAA's application fails to demonstrate that it has the knowledge, experience and ability to run a quality and reliable acceptance test certification program. For example, their application:

A. Fails to demonstrate that tests have been validated for content, reliability and lack of bias. Standard industry practice is to require professional certification tests to be evaluated by a test validation professional for reliability, validity and lack of bias. (See Cal. Code Regs., tit. 8, § 291.3(b); U.S. Dept. of Labor, Testing and Assessment: Employer's Guide to Good Practices (2000), http://www.onetcenter.org/dl_files/empTestAsse.pdf; NCCA Standards 10-18 testing guidelines & ISO 17024 testing guidelines.) Test validation should be required.

B. Fails to ensure applicants have the three years of verifiable professional experience and expertise in lighting controls required under Title 24, Part 1, § 10-103-A (c)(3)(B)(iii).

1. NLCAA instead recognizes generalized experience in indoor and outdoor lighting, which could consist simply of changing out light fixtures – light fixtures don't fall under the definition of lighting controls in Section 100.1 of the Energy Code.

2. NLCAA provides no procedures for verifying work experience.

3. The NLCAA application should (1) require applicants to provide letters from employers or other evidence to verify their work experience claim; and (2) require that the lighting controls meeting this experience requirement are those defined in Section 100.1 of the Energy Code.

C. Improperly expands the list of qualified applicants to include persons with degrees and certifications with no connection to lighting control systems (including persons with degrees in geology or philosophy).

1. Commission regulations recognize the following professions as providing verifiable professional experience and expertise in designing, installing, testing, adjusting or balancing advanced lighting controls systems: (1) electrical contractors; (2) certified general electricians; (3) professional engineers; (4) controls installation and startup contractors; and (5) certified commissioning professionals. (Title 24, Part 1, Section 10-103-A, subd. (b)(2).)

2. The Commission should not allow NLCAA to unilaterally expand this list of qualified professionals without holding stakeholder meetings to assess the likelihood of other proposed professional designations providing similar verifiable professional expertise.

D. Proposes a much lower standard of quality assurance audits than the currently approved lighting control acceptance test certification provider CALCTP.

1. NLCAA requires (1) random field inspections totaling 1% of all tests; (2) random document reviews totaling 2% of all forms; and (3) scheduled field observation reviews totaling 1% of all tests (plus two initial scheduled field observations reviews during a technicians first 75 tests).

2. CALCTP requires 6% paper audits and 6% random field inspections during the first three years of the program, dropping down to 4% paper audits and 4% random field inspections in years 4-5 and 2% paper audits and 2% random field inspections thereafter.

   a. CALCTP thus audits 12% of all tests during the first few years of the program, compared to just 4% of the NLCAA tests.
   b. Model audit guidelines recommend new programs require a 95 to 98 percent confidence level at first to ensure any initial issues with noncompliance are identified and addressed. CALCTP's audit rate meets this confidence level guideline.

c. Acceptance test certification providers' quality assurance programs are going to be a race to whatever bottom the Commission sets.

E. Fails to identify what constitutes a failed quality assurance audit or what remedial action a failed paper or on-site audit will trigger.

1. Without such a description, it is impossible to determine if these audits have any meaning.

2. No remedial action is described at all for failed paper audits or scheduled field inspections.

3. Where a random field inspection finds an error, the remedial action is to just increase the percentage of random field inspections from 1% to 2% of the next 100 jobs.

For these reasons NECA asks the Commission to not approve the NLCAA application. NECA thanks the Commission for the opportunity to review and comment on its lighting control acceptance test technician certification provider applications. The providers are the gatekeepers for ensuring a successful and reliable certification program. We urge the Commission to set the highest possible standards for these providers. The success of this program depends not just on the content of the curriculum, but also upon requiring qualified and experienced certification providers.

Kindest regards,

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Legislative and Regulatory Advocate