

Response to Comments for NLCAA Application to Become a Lighting Controls ATTCP

Energy Commission staff has completed a review and validation of the National Lighting Contractors Association of America's (NLCAA) application to determine whether the application meets the requirements of Section 10-103-A(c) of the 2013 Building Energy Efficiency Standards. (Cal. Code Regs., tit. 24, pt. 6, and associated administrative regulations in pt. 1, ch. 10.) On July 2, 2014, Energy Commission staff determined that NLCAA's application meets the requirements of the 2013 Standards Section 10-103-A(c). Pursuant to Section 10-103-A(f) of the 2013 Standards, staff explained these findings in the Staff Evaluation Report. A notice of availability was transmitted on July 18, 2014, over the Energy Commissions Listserv informing interested parties that the Staff Evaluation Report along with NLCAA's application was available on the Commission's website. All interested persons have had a reasonable time, since July 18, 2014, to review the posted information.

Pursuant to Section 10-103-A(f), staff reviewed public comments that were received in response to the July 18, 2014, Staff Evaluation Report and NLCAA's application. Energy Commission staff has grouped similar comments and is providing a response to each comment raised.

1. NLCAA demonstrates that it has the experience, qualifications, and reputation to ensure success.

Short Response

Pursuant to Section 10-103-A(f), Energy Commission staff must validate and review NLCAA's application to determine whether it meets the regulatory requirements in Section 10-103-A(c). There are no regulatory requirements that pertain to an applicant's experience, qualifications, and reputation. These are non-regulatory requirements that are not a part of Energy Commission staff's determination that NLCAA's application meets the requirements of Section 10-103-A(c).

Detailed Response and Analysis:

While there are no regulatory requirements that pertain to an applicant's experience, qualifications, and reputation, the Energy Commission understands the importance of the ATTCP program. The Energy Commission wants to ensure that all approved ATTCP's are capable of providing a program that will benefit Technicians, Employers, and California building owners to support California's efforts to increase building energy efficiency. Staff has validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). With this determination, Energy Commission staff is confident that NLCAA is qualified to implement a successful program.

NLCAA addressed concerns about its experience and qualifications in its response letter dated August 13, 2014. NLCAA's response letter provides a list of team members and summarizes each member's experience and qualifications. Many of the team members are business owners and electrical contractors with decades of experience in implementing

lighting and lighting controls. Some of the team members are certified Acceptance Test Technicians and certified Employers. Its team members have many years of experience teaching courses on lighting systems and controls and developing technical lectures and hands-on labs for lighting controls.

Based on Energy Commission staff's evaluation of NLCAA's application, as explained in the Staff Evaluation Report, and after consideration of comments received, staff continues to conclude that NLCAA's application meets the regulatory requirements. The Energy Commission will consider the concerns raised and monitor implementation of the ATTCP program to determine if any changes to the regulations should be considered through the rulemaking process for updating the 2016 Standards.

2. NLCAA properly validates prequalification requirements of those who become certified.

Short Response

The 2013 Standards limit participation in the Technician certification program to those persons who have 3 years of verifiable experience in lighting controls and electrical systems as determined by the ATTCP. Staff has validated and reviewed NLCAA's application and has determined that the application sufficiently demonstrates the criteria and reviewing processes used to determine whether a Technician applicant meets the prequalification criteria and the relevance of the Technician applicant's professional experience.

Detailed Response and Analysis

NLCAA requires all applicants to demonstrate that they have three years of experience by filling out an application where the applicant must provide employment information. Applicants must also provide a summary of relevant experience in lighting controls by listing the number of years of experience and provide a description of their experience in occupancy and photosensors, low and line voltage dimming systems, demand response control systems, time-based scheduling systems, interior lighting controls, and outdoor lighting controls. They must then sign and date their application. There is also a section in the application where the applicant must upload credentials such as copies of certificates, certification numbers, and licenses. All candidate applications are reviewed by NLCAA to ensure the applicant is qualified to take the training course.

Based on staff's evaluation of NLCAA's application, as explained in the Staff Evaluation Report, and after consideration of comments received, staff has not changed its conclusion that NLCAA's application meets the regulatory requirements.

Specific Questions on Prequalification

- a. Q - NLCAA does not adequately verify three years of verifiable professional experience and expertise in lighting controls and electrical system. They provide no procedures for verifying work experience.

A - NLCAA's application includes the criteria and processes it will use to ensure that all Technicians meet the prequalification requirements. Specifically, the application states that NLCAA will require Technicians to fill out an online form and provide: Employer information, years of experience in occupancy and photosensors, low and line voltage dimming systems, demand response control systems, time-based scheduling systems, interior lighting controls, and outdoor lighting controls. They must then sign the document. NLCAA will review all candidate applications to ensure the applicant is qualified to take the training course.

- b. Q - NLCAA expands the list of qualified professionals. NLCAA must use those individuals listed in Section 10-103-A(b)2. Expanding the list puts CALCTP at a competitive disadvantage. NLCAA allows those with a MS or BS in philosophy and geology. It also expands applications to military veterans with ratings in radio, aircraft communication, radar systems, and other non-lighting controls related systems.

A - Staff has validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). There are no requirements in Section 10-103-A(c) that specify a list of qualified professionals. Section 10-103-A(b)2 pertains only to the industry certification threshold. Therefore, those industry groups listed in Section 10-103-A(b)2 for certification apply only to meeting the threshold requirements. The only prequalification requirement for participation in the Technician certification program is that persons have 3 years of verifiable experience in lighting controls and electrical systems.

- c. Q - How will NLCAA determine who is considered a qualified commissioning professional, or a controls installation and startup contractor.

A - Staff has validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). There are no requirements in Section 10-103-A(c) that specify a list of qualified professionals. The only prequalification requirement for participation in the Technician certification program is that persons have 3 years of verifiable experience in lighting controls and electrical systems per Section 10-103-A(c)B(iii). As long as this minimum requirement is met, the applicant may take the training course regardless of designation, job title, or degree.

- d. Q - NLCAA accepts generalized experience in installing and maintaining indoor lighting and outdoor lighting.

A - NLCAA does not accept generalized experience in installing and maintaining indoor lighting and outdoor lighting. NLCAA requires experience in controls for indoor lighting and outdoor lighting systems.

3. NLCAA's test development and test curriculum are sufficiently rigorous and meet the requirements of Section 10-103-A.

Short Response

The 2013 Standards require an ATTCP applicant to demonstrate through its application that it has a written and practical test that demonstrates each Technician applicant's competence in all subject areas. Staff has validated and reviewed NLCAA's application and has determined that the application sufficiently demonstrates this requirement.

Detailed Response and Analysis

The 2013 Standards require that the ATTCP submit the necessary training material including written and practical tests that demonstrate each certification applicant's competence in all "specified subjects," which include occupancy and photosensors, low and line voltage dimming systems, demand response control systems, time-based scheduling systems, interior lighting controls, and outdoor lighting controls. Staff has reviewed NLCAA's application and reviewed the written and practical tests. Staff has validated and ensured that NLCAA's test development and test criteria are sufficiently rigorous, will ensure reliable results, and do not indicate bias exists.

Specific Question on Test Development

- a. Q - It is standard industry practice to require professional certification tests to be evaluated by a test validation professional to ensure sufficient rigor, reliability and lack of bias.

A – Energy Commission staff has validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). Energy Commission staff has validated and ensured that NLCAA's test development and test criteria are sufficiently rigorous, will ensure reliable results, and do not indicate bias exists.

There are no requirements in Section 10-103-A(c) that requires training material to be reviewed or approved by a test validation professional.

- b. Q - Are there multiple versions of the exams, do they use the same test questions?

A - Energy Commission staff validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). Energy Commission staff has reviewed NLCAA's exams and believes they are sufficiently rigorous, and will ensure reliable results.

There are no requirements in Section 10-103-A(c) that require multiple versions of the exams. Although, NLCAA will continually review exam questions and responses to ensure students understanding of the subject matter.

- c. Q - Are new test questions developed on a regular basis to prevent exam answers from being shared with other students?

A - Energy Commission staff validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). There are no requirements in Section 10-103-A(c) that require the applicant to continually develop new questions. Energy Commission staff will monitor program implementation to determine if this should be required in future revisions of the Standards.

- d. Q - Are exams proctored? If so, how, and by whom?

A - Pursuant to NLCAA's application, all exams are proctored by the instructor.

- e. Q - What is NLCAA's protocol for maintaining exam result records?

A - Section 10-103-A(c)(3)(B)(v) requires that the ATTCP maintain the results of the written and practical tests for five years after the date of the test. NLCAA retains the final examination in its server database for a minimum five years.

- f. Q - How does NLCAA maintain exam security?

A - Pursuant to NLCAA's application, all exams are proctored.

4. NLCAA's application includes sufficient quality assurance.

Short Response

The 2013 Standards require an ATTCP applicant to demonstrate through its application how its certification business practices include quality assurance. Staff has validated and reviewed NLCAA's application and has determined that the application sufficiently demonstrates this requirement.

Detailed Response and Analysis: The 2013 Standards Section 10-103-A(c)3F requires the ATTCP to describe in its application to the Energy Commission how its certification business practices include quality assurance.

NLCAA includes random audits as part of the Quality Assurance procedure. Random audits consist of random form review and random field inspections. The rate of random form reviews is two percent. The rate of random field inspections is one percent.

Scheduled field inspections will occur after a Technician has completed 11 Acceptance Test jobs. Upon satisfactory field inspection, a scheduled field inspection will occur every 25 jobs, every 50 jobs, and every 100 jobs. If the scheduled field inspection is unsatisfactory, a complaint will be generated by NLCAA.

A disciplinary field inspection occurs as the result of a complaint either by an outside entity or by NLCAA. During the disciplinary field inspection, retesting of lighting controls will be performed by NLCAA to verify Acceptance Testing results.

NLCAA requires Technicians to use NLCAA's proprietary Acceptance Test software when performing an Acceptance Test. The NLCAA software is designed so that the Acceptance Test Technician enters all required Acceptance data directly into the application's database. The software will generate all Acceptance Test forms, perform the required calculations which help eliminate mathematical errors, and ensure entered values are within a range that is reasonable. Technicians will be required to take pictures throughout the testing process of all controls. These pictures will be GPS-encoded to verify the Technician was on-site and that the proper controls are being tested. Once the Acceptance Tests are completed and signed, the Technician will no longer be allowed to make changes or modifications to the completed forms.

Staff believes use of this software will assist in the quality assurance process to ensure correct values are entered in the field and that the tests were completed properly.

Specific Questions on Quality Assurance

- a. Q - NLCAA does not have a description of what is considered an error or failed audit and what triggers further action. This information should be provided for public review and comment prior to approval of the application.

A - Energy Commission staff validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). There is no specific requirement that an applicant must define an error or failed audit and what triggers further action. However, NLCAA's application does list what is considered an error or failed audit and what triggers further action. A failed paper audit will trigger an NLCAA field inspection. Upon failure of a field inspection, NLCAA will submit to itself a complaint form and a formal complaint process will be initiated. The application also describes further action for failed audits (disciplinary actions).

- b. Q - NLCAA does not discuss what further action is taken for failed audits. This information should be provided for public review and comment prior to approval of the application.

A - Energy Commission staff validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). There is no specific requirement that an applicant "discuss what further action is taken for failed audits." However, NLCAA's application lists the action that will occur for failed audits. A failed paper audit will trigger an NLCAA field inspection. Upon failure of a field inspection, NLCAA will submit to itself a complaint form and a formal complaint process will be initiated. The application also describes further action for failed audits (disciplinary actions).

- c. Q - A higher rate of QA should be required.

A - Energy Commission staff, pursuant to Section 10-103-A (f)(1), must review and validate all information received in ATTCP applications to ensure that all requirements in Section 10-103-A(c) are met. Section 10-103-A(c)(3)(F), does not require an applicant to demonstrate a specific QA rate. Instead, an applicant must describe in its application to the Energy Commission how its certification business practices include quality assurance, independent oversight and accountability measures. As stated in the detailed response and analysis to comment three above, NLCAA has met this requirement.

Energy Commission staff has reviewed and validated NLCAA's application and has determined that NLCAA's application describes a QA system that meets the requirements.

- d. Q - NLCAA should be required to provide reports on all failed audits to the Energy Commission.

A - Energy Commission staff validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). The 2013 Standards do not require a provider to report failed audits to the Energy Commission. Energy Commission Staff will have access to NLCAA's QA tracking software and can review failed audits.

- e. Q - It is not clear from NLCAA's application if there is any consequence to certified Acceptance Test Technician Employers if their employee fails an audit.

A - Energy Commission staff validated and reviewed NLCAA's application and determined that it meets the regulatory requirements in Section 10-103-A(c). NLCAA's application explains that the Technician and Employer are required to fill out the audit form together. If there are any discrepancies then the Technician and Employer will start the disciplinary action. The application also describes further action for failed audits (disciplinary actions) for both Employers and Technicians.

- f. Q - Commission staff should be directed to set the minimum required number of random quality assurance audits before approving any applicants.

A - Section 10-103-A(c)3F requires an ATTCP to describe in its application how its certification business practices include quality assurance, independent oversight and accountability measures. Section 10-103-A(c)3F does not require a minimum number of audits. Any changes or code modifications to Section 10-103-A would require rulemaking. Staff invites stakeholders to participate in the Energy Commission's upcoming 2016 Building Energy Efficiency Standards rulemaking proceeding to reiterate these comments to amend the program's regulatory requirements. For more information, see the Energy Commission's webpage for Public Participation in the Energy Efficiency Standards Update, at <http://www.energy.ca.gov/title24/participation.html>.

5. CALCTP's application should be processed first.

Detailed Response and Analysis: Section 10-103-A does not specify the order in which applicants shall be approved.