

Task	New Minimum Qualification	Alternative Min. Qualification (Approved by the Executive Director on a case-by-case basis)	Additional Recommended Qualifications for building owner to consider/follow up on
Whole Building Energy Audit, Recommendations and Utility Data Analysis	CA Existing Building Multifamily Upgrade Training	Alternative Min. Qualification: Meet requirements of CA EMF training petition procedure similar to BIG/HMG process; TCAC Executive Director to make final determination/approval. http://builditgreen.org/GPR-prerequisites-eligibility/	Tier 1: At least a PE, CEM, BPI Multifamily Building Analyst
Energy Modeling	California Association of Building Energy Consultants (CABEC) Certified Energy Plans Examiner (CEPE) (Nonres CEPE for HR MF and Res CEPE for low-rise MF.) and a HERS II Rater. The consultant preparing the " as-built " energy model shall be responsible for verifying that all the energy efficiency measures have been met, including verification of installation certificates (CF-6R forms) and field verification certificates (CF-4R forms) for Low-rise and required acceptance testing forms for High-rise	N/A	Tier 2: A HERS II rater, 3 years experience in MF buildings, GPR EH MF Rater, CEPE (res or non res) Recommended questions for building owner to ask auditor: 1. How many buildings have you audited? 2. How many buildings like mine? 3. What are typical savings that you find/predict? 4. How much of the recommended work is typically acted on? 5. Can I see three sample reports from your previous jobs? 6. Can I have three references?
Third-Party Verification	HERS II Rater	N/A	
Commissioning and retrocommissioning (required for some HR measures; good practice for some others)	Commissioning - Meet requirements of BIG or Cal Green (*see below) http://www.documents.dgs.ca.gov/bsc/CALGreen/Non-Res-Comm-Guide-10-10.pdf , OR Person or Firm doing the commissioning must be on the approved list with the California Commissioning Collaborative < http://www.cacx.org/resources/selecting.html > The Cx agent does not have to be an independent third party.	Commissioning or Retro Commissioning Certification from one of the following certifying bodies: Association of Energy Engineers, AABC Commissioning Group, ASHRAE, National Environmental Balancing Bureau, Testing Adjusting and Balancing Bureau or University of Wisconsin-Madison	See California Commissioning Collaborative's "How to Select a Cx Provider" http://www.cacx.org/resources/selecting.html
Combustion appliance safety	BPI Building Analyst or HERS Building Performance Contractor	N/A	N/A
Feasibility of renewable energy installation	CSI Approved Contractor (C-46 Solar Contractor license)	N/A	N/A
Renewable energy inspection/verification	HERS Rater with PV qualification from HERS Provider	N/A	N/A
Operations and maintenance	BPI Multifamily Building Operator or NAHMA Green Building Operator	N/A	N/A
CUAC Analysis	California Association of Building Energy Consultants (CABEC) Certified Energy Plans Examiner (CEPE), AND either HERS Rater or CA Licensed Engineer	N/A	N/A
Green Point Rating	Build It Green Certified Multifamily Green Point Rater	N/A	N/A
CalGreen Compliance	HERS II or Multifamily Green Point Rater	N/A	N/A

Commissioning Qualifications from CalGreen

Selecting Trained Personnel for (Commissioning)

This code requires that "Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity." The trained personnel manage and facilitate the commissioning process. The trained personnel develop and implement the commissioning tasks and documentation identified in sections 5.410.2.1 through 5.410.2.7. Trained personnel may include appropriate members of owner staff, contractor and design team as well as independent commissioning professionals.

It is essential that there is a single person designated to lead and manage the commissioning activities. In practice, this individual has been referenced by various identifiers such as commissioning authority, agent, provider, coordinator, lead, etc. In this guide the term "commissioning coordinator" is used.

The designated commissioning coordinator may be an independent third-party commissioning professional, a project design team member (e.g. engineer or architect), an owner's engineer or facility staff, contractor or specialty sub-contractor. Methods of evaluating the designated commissioning coordinator and trained personnel include review of the following:

1. Technical knowledge
2. Relevant experience
3. Potential conflict of interest concerns
4. Professional certifications and training
5. Communication and organizational skills
6. Reference and sample work products

Selection of "trained", qualified personnel is required by this Code. In order to meet this requirement, the commissioning provider should be evaluated via the methods discussed above. In addition, various organizations have training and certification programs that may be a source for identification of qualified commissioning providers.

For information about enforcement and compliance of each commissioning element see sections 5.410.2.1 through 5.410.2.7.