



MOTOR EFFICIENCY COMPLIANCE IN THE US, CANADA AND MEXICO

Advanced Energy is accredited by the ANSI National Accreditation Board (ANAB) and the Standards Council of Canada (SCC) as a Certification Body to ISO/IEC 17065 for Energy Efficiency Verification Services including small electric motors, electric motors and generators. We are also designated by the Asociación de Normalización y Certificación A.C. (ANCE) in Mexico for motor efficiency compliance testing to NOM-014 and NOM-016.

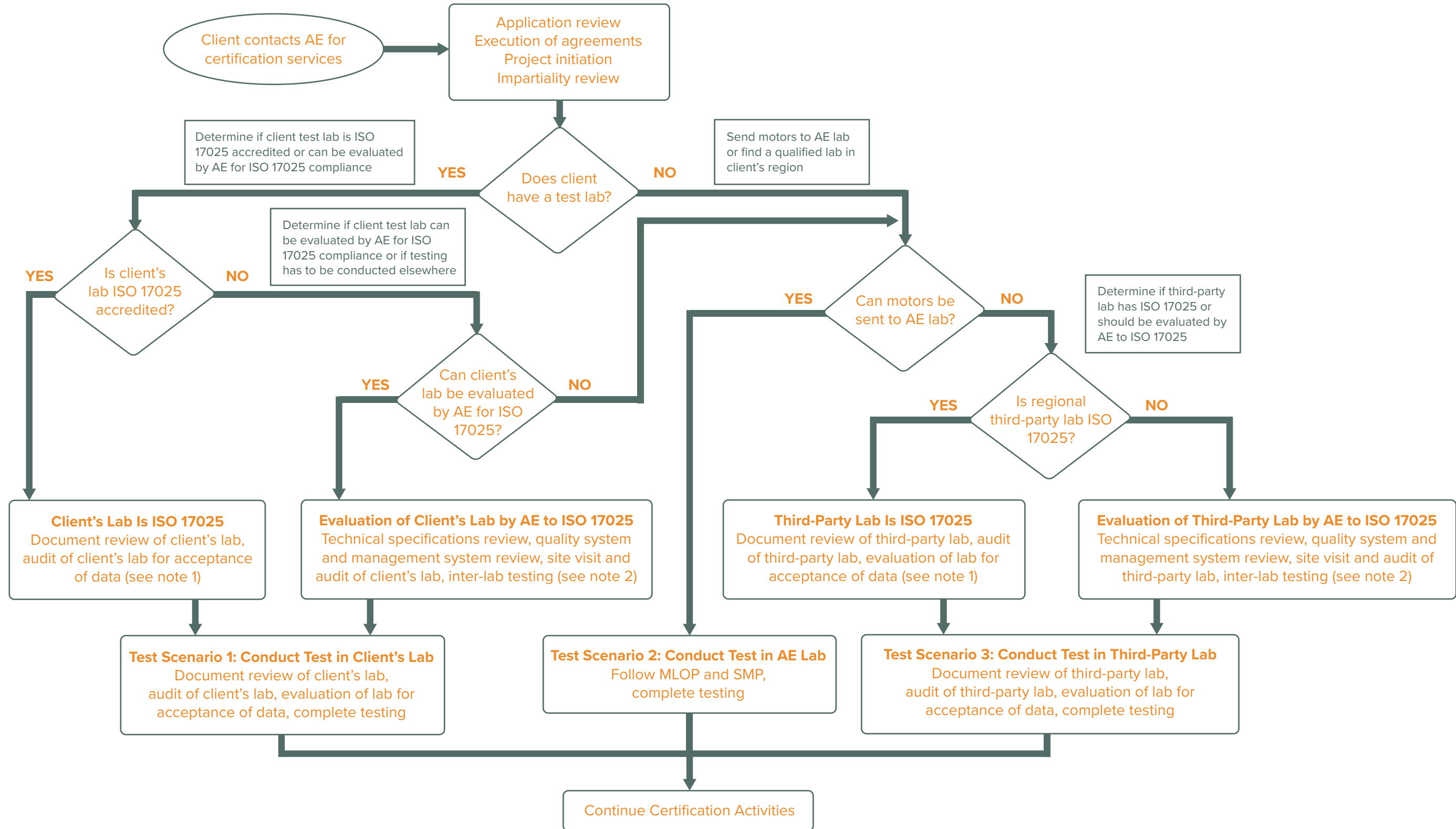
- **United States:** Motor manufacturers seeking compliance with U.S. Department of Energy (DOE) regulations as stipulated in 10 CFR Part 431, Subpart B and Subpart X can use Advanced Energy for motor efficiency certification.
- **Canada:** Motor manufacturers seeking compliance with Natural Resources Canada (NRCan) regulations as stipulated in SOR/2016-311, Part 2, Division 12, Subdivisions A&B can use Advanced Energy for motor efficiency certification.
- **Mexico:** Motor manufacturers seeking compliance in Mexico can utilize Advanced Energy's ISO 17025 testing in combination with ANCE as the Certification Body for compliance. Advanced Energy's certification mark is not utilized in Mexico.

Advanced Energy is the most experienced independent test lab for motor efficiency available to manufacturers seeking compliance. We have spent decades following and contributing to the DOE rulemaking process for motor efficiency testing. Our experience, combined with our rules understanding, provides a strong foundation for assisting motor manufacturers with compliance.

Of the three DOE-recognized certification programs for motor efficiency, Advanced Energy operates the only National Voluntary Laboratory Accreditation Program (NVLAP) accredited motor test lab (Lab Code: 200081-0). NVLAP is specifically designed for motor efficiency testing and is administered by the National Institute of Standards and Technology (NIST). NVLAP requires ISO 17025 general requirements for test labs and adds motor efficiency testing guidelines with NIST Handbook 150-10. Advanced Energy was the first NVLAP accredited lab in the world in 1997 and remains the only independent motor efficiency test lab in North America with this accreditation.



PRODUCT CERTIFICATION FLOWCHART



DETAILED NOTES

Advanced Energy's recognition as a Certification Body demonstrates our experience in and commitment to motor testing and managing a certification system. The certification process can take different paths depending on a manufacturer's needs. Once a product is certified by Advanced Energy, the manufacturer is issued all rights to use our certification mark on their motors for one year in both the U.S. and Canadian markets. Follow-on services are required to maintain certification annually.

All facilities where testing is conducted for certification purposes will be evaluated by Advanced Energy for compliance to ISO/IEC 17025. Facilities that are accredited to ISO/IEC 17025 will be evaluated and approved. All other facilities that are capable of meeting the ISO/IEC 17025 requirements will be evaluated by Advanced Energy for compliance to ISO/IEC 17025 prior to these facilities being accepted to conduct testing for certification purposes.

1. For facilities with ISO/IEC 17025 accreditation, Advanced Energy shall conduct an abbreviated review of the lab's competence. The following steps shall be followed:
 - a. Seek certificate of accreditation and review scope of accreditation
 - b. Review lab layout and equipment specifications for conformance to test procedures outlined in regional regulations
 - c. Review sample test reports and raw data. Process the raw data and compare results to those provided by lab
 - d. Approve lab for testing
2. For facilities without ISO/IEC 17025 accreditation, Advanced Energy shall evaluate them for conformance to ISO/IEC 17025:
 - a. Determine if lab has equipment, personnel and quality system that can meet ISO/IEC 17025 requirements
 - b. Review equipment calibration records
 - c. Review management system documentation
 - d. Review lab layout and equipment specifications for conformance to test procedures outlined in regional regulations
 - e. Review sample test reports and raw data. Process the raw data and compare results to those provided by lab
 - f. Conduct a site audit. Use NIST Handbook 150 Checklist and NIST Handbook 150-10 Checklist to conduct audit of the facility. Conduct inter-lab comparison testing of the lab to witness testing; interview test personnel to evaluate competence
 - g. Approve lab for testing

ADDITIONAL INFORMATION

For more information, please visit www.advancedenergy.org/mad or contact Kitt Butler at kbutler@advancedenergy.org or 919-857-9017.