

“Global Motor Energy Efficiency”

GMEE

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REGAL

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APEC Conference 2019



The Association of Electrical and Medical Imaging Equipment Manufacturers





WHO IS NEMA?

The National Electrical Manufacturers Association (NEMA) represents nearly 350 electrical equipment and medical imaging manufacturers, across 55 product groups focused on making safe, reliable, and efficient products and systems.

Our combined industries account for 360,000 American jobs in more than 7,000 facilities covering every state.

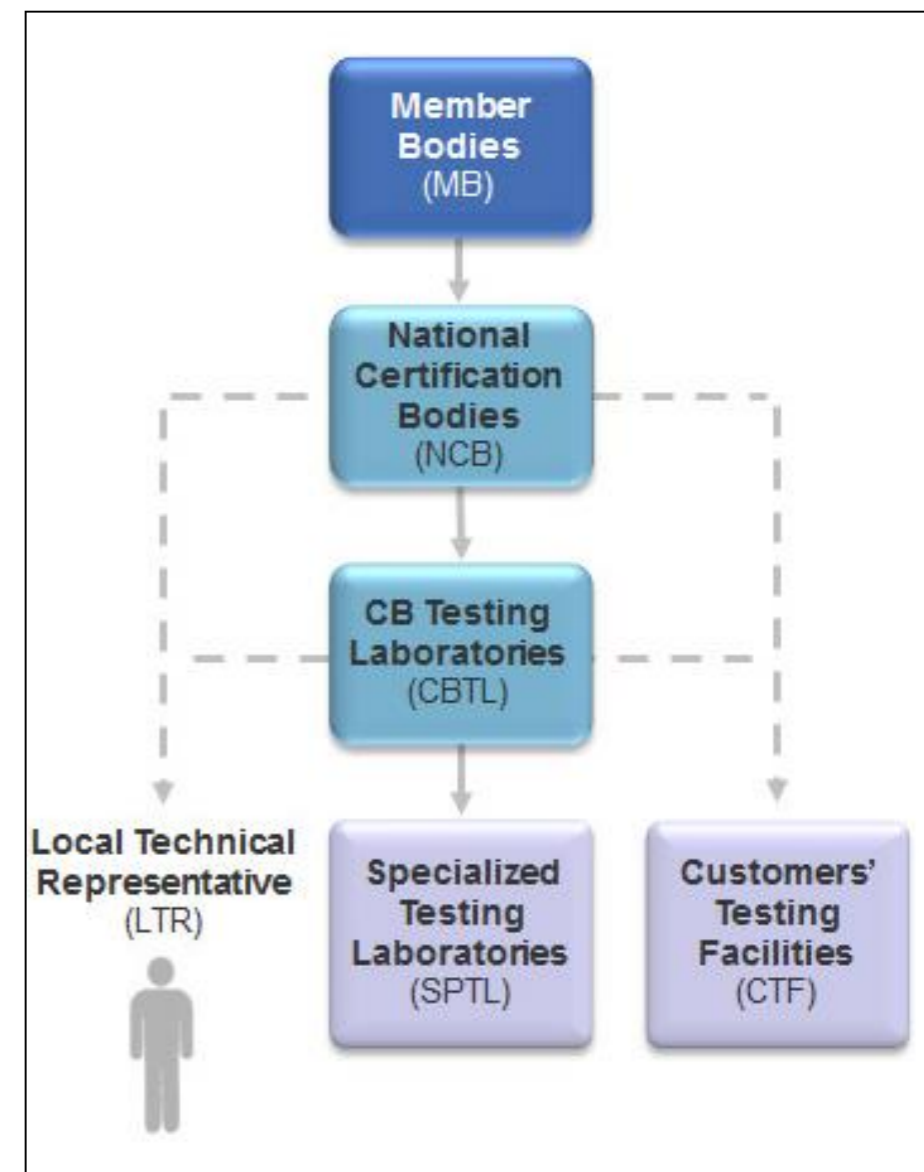
Approximately 40 Motor and Drive manufacturers

Approximately 80% of Motor and Drive market



WHO IS IECEE?

Argentina	Finland	Malaysia	Slovenia
Australia	France	Mexico	South Africa
Austria	Germany	Netherlands	Spain
Bahrain	Greece	New Zealand	Sweden
Belarus	Hungary	Nigeria	Switzerland
Belgium	India	Norway	Thailand
Brazil	Indonesia	Pakistan	Turkey
Bulgaria	Ireland	Poland	Ukraine
Canada	Israel	Portugal	United Arab Emirates
China	Italy	Russian Federation	United Kingdom
Colombia	Japan	Saudi Arabia	United States of America
Croatia	Kenya	Serbia	Viet Nam
Czech Republic	Korea, Republic of	Singapore	
Denmark	Libya	Slovakia	



- 54 Member Bodies (Countries)

- 472 CBTL's (Certification Body Test Laboratories)

- >100K CBTC each year (CB Test Certificates)

- 78 NCB's (National Certification Bodies)

- 2,246 Customer Test Facilities

- 23 Product Categories (based on IEC standards)



WHAT IS GMEE?

GMEE - Global Motor Energy Efficiency (CB Scheme Equivalent)

“Motor EE Test Results Passport = 1 test report accepted around the globe”

- Follows successful CB Scheme
- “Direct to Market” Certificate approach
- Global Test Standards (IEC 60034-1, -2-1, -30-1)
- ISO Test Laboratory Quality Requirements (ISO 17025)
- Defined Certification Requirements (model selection/number of models/number of tests, AEDM, etc.)
- No **Mandatory** Labelling Requirements (CB Test Certificate Number)
- No Verification Program (No Plant Inspections/Follow Up Services/Factory Surveillance)
- 27 GMEE Certificates issued since program released



Why do we need GMEE?

MEPS

- National Energy Savings are not realized without effective CCE (Certification Compliance and Enforcement)
- User confidence in Energy Efficient Motor marking/labels
- Lack of effective MEPS Enforcement and Verification processes
- National MEPS CCE vary and can slow or block international trade
- National Motor MEPS increasing steadily
- Developing Nations creating new CCE requirements
- Simplify Regulatory CCE complexity
- No Global MEPS Program

Testing Standard	Country MEPS (Minimum Energy Performance Standard)	Country MEPS Regulation
Low Uncertainty IEC 60034-2-1, IEEE 112B or CSA C390	USA (1/4-500HP)	US DOE 10 CFR Part 431
	Europe: 2015* (>7.5kW); 2017* (>0.75kW)	ErP Directive, Regulation 640/2009
	Canada (1-500HP)	Canadian EEA, CSA C390
	Mexico (1-500HP)	NOM 016-ENER-2010
	South Korea	MOCIE/KEMCO
	Australia/New Zealand	AS/NZS 1359:2004
	China	GB 18613-2010
	Brazil	NBR 17094-1
	Turkey	SMG-2012/2
	Argentina	IRAM 62405
	Saudi Arabia	SASO
	Chile	SEC PE No 7/01/2
	Thailand	Thailand TEI
	Japan	Energy Labeling Program
	Vietnam	MOIT 03/2013/QD-TTg
	India	BEE Schedule 6
Israel	EEEM 5764-2004 / SI 5289	
Costa Rica	Decree No. 25584 / 24.10.96	
Taiwan	CNS 14400	
Peru	MINEM 1-200HP	



HOW DO I FIND IECEE & GMEE?

www.iecee.org

IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE)

Navigation: About IECEE, Members, News, Testing & Certification, Committees, Peer Assessment, Documents, Events & Meetings

Menu: What is IECEE, Brochures, CB Scheme, CB-FCs Scheme, Factory Surveillance, Photovoltaics, Medical, Hazardous, **Global Motor Energy Efficiency**

News & Communications:

- NCB ECM, ENTE CERTIFICAZIONE MACCHINE S.R.L. has been accepted to operate in the IECEE CB Scheme as a Recognizing NCB
- IECEE Lead & Technical Assessor Training, Geneva, Switzerland. The 2016 Lead & Technical Assessor Training Material is now available on line
- CBTL EMC Integrity Incorporated name change has been changed name into National Technical Systems (NTS) Longmont
- CBTL VDE Product Testing Technology (Shanghai) Co., Ltd. Suzhou Branch (VDE Global Services Suzhou Branch) has been accepted to operate in the IECEE CB Scheme, under the responsibility of NCB VDE Pruef- und Zertifizierungsinstitut GmbH
- Keeping our powered lives safe. From the smartphone alarm first thing in the morning to switching off the lights last thing at night, many products and systems in our daily lives run off electricity. We use the hairdryer, washing machine, stove, get on and off transport and walk...

Tools:

- Online Deliverables
- IECEE current decisions (CMC, PAC, PSC, CTL)
- Components Acceptance DB
- Collaboration Tools

Upcoming Events:

- 2016-10-03/05 IECEE Lead and Technical Assessor Training, Geneva
- 2016-10-06 IECEE FSB Assessor Training, Geneva
- 2016-10-07 IECEE FSB Inspector Training, Geneva
- 2016-10-12 am IEC-ILAC-IAF Steering Committee, Frankfurt
- 2016-10-18 am CFS Chair's Advisory Group, Berlin
- 2016-10-18/19 CFS Annual Meeting, Berlin
- 2016-10-25/26/27 Risk Management Workshop, Irvine

IEC - ILAC - IAF: A New Collaboration

ilac | IAF | IEC

"Combine our skills"

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About IECEE

IECEE Global Motor Energy Efficiency

Electric motors driving pumps, fans, compressors and other machines are responsible for 45% of global electricity use.

Many countries have established mandatory Minimum Energy Performance Standards (MEPS) for electric motors with efficiency requirements. More countries are likely to do this in time.

While MEPS are now most often based on the motor efficiency classification and efficiency test methods in IEC Standards, the process and requirements for certification and compliance vary greatly from country to country, including test standards, laboratory accreditation, sampling, test process and labelling.

The IECEE Global Motor Energy Efficiency Programme (GMEE) addresses the many trade barriers due to these differing country regulations for motor efficiency, and to attempt to set up a globally harmonized and applicable programme.

Get the brochure

The IECEE Global Motor Energy Efficiency Programme (GMEE)

610 kB

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About IECEE

What is IECEE

IECEE, the IEC System for Conformity Assessment Schemes for Electrotechnical Equipment and Components, is a multilateral certification system based on IEC International Standards. Its Members use the principle of mutual recognition (reciprocal acceptance) of test results to obtain certification or approval at national levels around the world.

The IECEE Schemes address the safety, quality, efficiency and overall performance of components, devices and equipment for homes, offices, workshops, health facilities among others. In all, IECEE covers 23 categories of electrical and electronic equipment and testing services. (See [List of product categories](#))

Get the brochure

IECEE. Taking Conformity Assessment Further

1.29 MB

National differences

In countries where national standards are not yet completely based on IEC International Standards, declared national differences are taken into account. However, to ensure the successful operation of the CB Scheme, it is essential that national standards are reasonably harmonized with the corresponding IEC International Standards.

A truly global System

IECEE membership is open to any country that has a Full or Associate Member National Committee of the IEC.

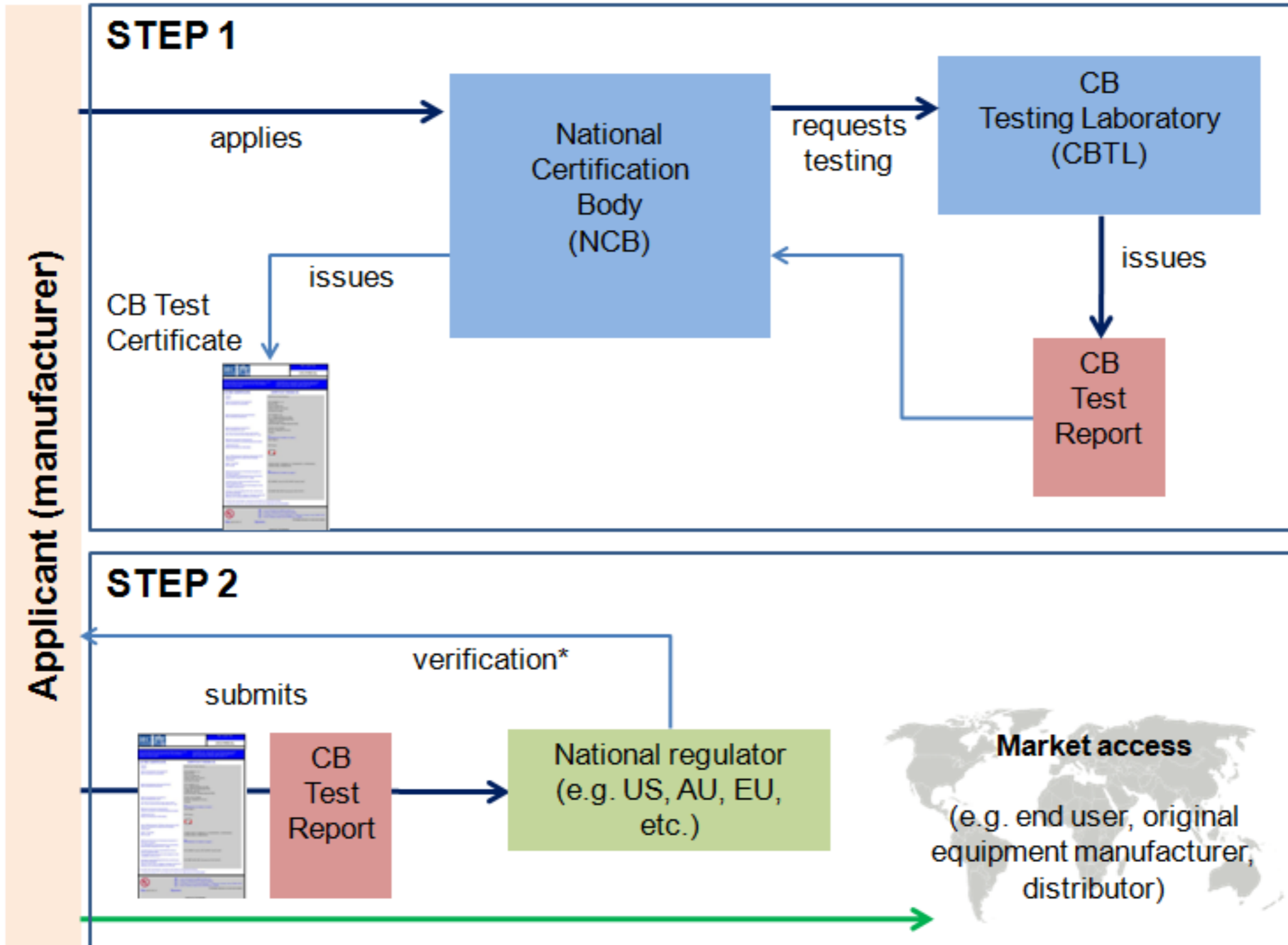
IECEE qualifies the National Certification Bodies (NCBs) that are responsible for recognizing and issuing CB Test Reports and Certificates. In turn IECEE NCBs employ test laboratories, known as CB Testing Laboratories (CBTLs) to perform the tests in compliance with IEC International Standards.

Countries that do not have an NCB also accept CB Test Reports and CB Test Certificates.

This website provides full lists of [IECEE Members](#), [accepted NCBs](#), [associated CBTLs](#) and [Local](#)



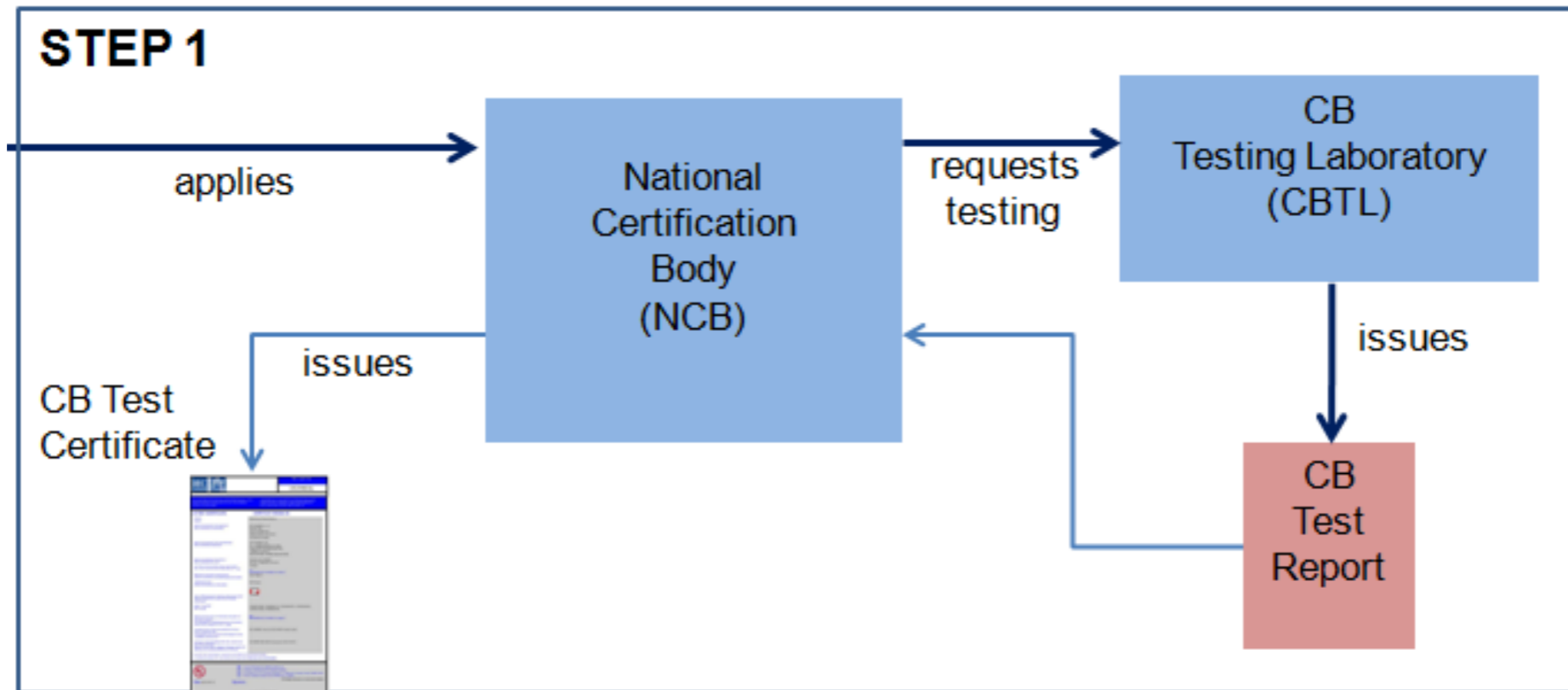
HOW DOES GMEE WORK?



*may require national compliance marks



STEP 1: GMEE CBTC

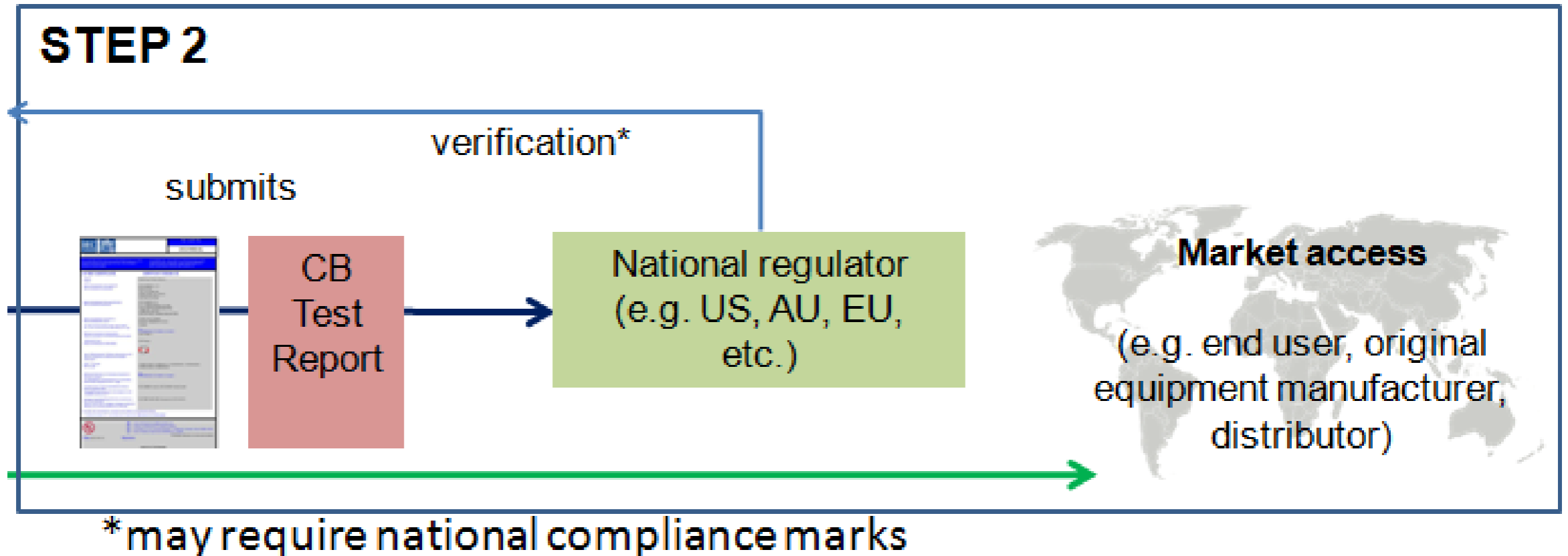


STEP 1: GMEE Motor Evaluation Process (NCB and CBTL)

1. Manufacturer provides NCB with desired Product Certification Scope
2. NCB review product scope and determines minimum Sample Selection
 - a. Product Line Certificate
 - b. AEDM Validation
3. Manufacturer coordinates Testing at CBTL or Manufacturer's test facility
4. NCB reviews Test Results for compliance to appropriate efficiency class level
5. NCB completes IEC 60034-2-1 Test Report Form (TRF)
6. NCB issues GMEE Test Certificate (CBTC) for covered product



STEP 2: NATIONAL MEPS

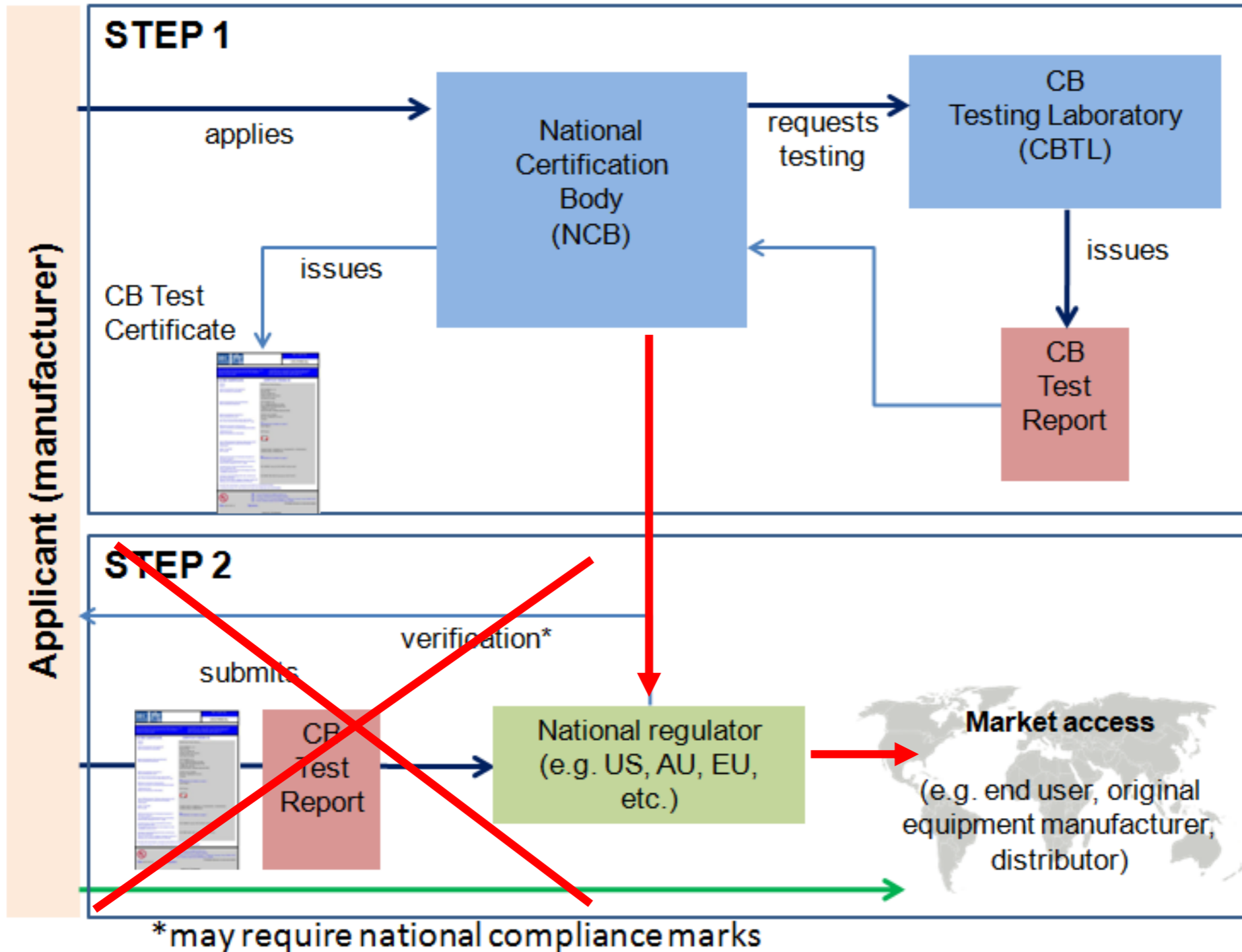


Step 2: GMEE National Regulatory Process

1. Manufacturer submits GMEE CB Certificate and Test Results to National Regulatory Body (i.e. US, Canada, Mexico, China, Australia, South Korea, Saudi Arabia, Brazil, etc.)
2. National Regulatory body reviews test results for compliance and issues compliance statement
3. Manufacturer complies with any national registration and/or marking requirements as needed



GMEE – FUTURE STATE



FUTURE STATE: NCB submits GMEE Certificate directly to National Regulator



NEXT STEPS...

Industry Challenges

- Global Market Access is challenging (product availability, compliance costs)
- Harmonize Certification Compliance and Enforcement (CCE) rules around the globe
- Common Test Sampling programs (Product Line or AEDM Evaluation)
- Common label identification of compliant products (GMEE, NEMA Premium)

Future for Energy Efficiency...

- Expand GMEE to Include Power Drive System? System Energy Efficiency Regulations (Pump, Fan and Compressor) increasing demand for higher motor efficiencies

What Industry needs from you!

- National Regulatory Bodies endorse/accept GMEE in their EE regulations
- Additional training available for National Regulatory contacts
- Please see me or Kirk Anderson from NEMA to get involved!

With your help and participation, GMEE program will improve CCE and expand growth of energy efficient motors in the global marketplace!



THANK YOU!

QUESTIONS?

