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**CERTIFICATION ENTITY**

## Who we are



**CERE** was originally set up as a Certification Entity for Renewable Energies.

**CERE** was created to be the access key on the target countries for Renewable Energies, where certification of components, full installations certificates, modeling and software validation of renewable Power Plants, were required.

The company is accredited as Testing Laboratory and Certification Body.

Our services include Testing and Certification according Safety, EMC, Grid Quality, grid connection requirements, design certification and complete installations Certificates, complementary simulations, modelling validation, electromagnetic transient analysis.

This full process includes Inspection, Testing and Certification of Components such as PV modules, Wind and PV converters, trackers, transformers, string boxes, combiner boxes, etc., and the Certification for full Power Plants according particular country, DSO or TSO requirements and / or According Client Requests

# CERE Profile

The Company is managed by Miguel Martínez. Its team has a large experience in Certification for more than 10 years, including renewable energy's components and installations for worldwide grid integration, design, safety, EMC and grid quality, among others.

During the last 6 years **CERE** has grown exponentially, diversifying its services until the actual company structure:



- Certification
- Converters
- Grid Code & safety
- Simulation
- Trackers
- Batteries
- EMC

- Electrical Vehicle Charger
- Transformers
- Medical devices
- Electric and Electronic devices
- Quality System certification

# CERE Capabilities

CERE's Facilities in Getafe, Madrid, Spain have the following installations:

- Test site up to 500kVA for all kind of converters and Battery testing
- Test site up to 250kVA for all kind of converters including frequency variators up to 400Hz
- Test site up to 100kVA for DC-AC converters
- Test site up to 50kVA for all kind of converters and Battery testing. The source can act as DC source and AC source and electronic loads
- Test site up to 10kVA for single phase and three phase converters
- Passive loads up to 100kVA
- Electronic loads for Antiislanding up to 500kVA
- EMC Chamber and EMC laboratory
- Safety laboratory
- Simulation laboratory including Power Factory, PSSE and MATLAB

# CERE's Accreditations

- **CERE** is accredited by ENAC and a2La (IAF/ILAC members) as Certification Body According ISO 17065 and Testing Laboratory according ISO 17025 for Power Generating Units. This fact ensures a deep knowledge in international requirements for components and Renewable Energies Power Plants.
- **CERE** is also CBTL and NCB for the IEC Scheme.
- MET approval for the North American market
- Sunspec approval
- SII approval for Israel
- RETIE approved certification body for PV inverters (Colombia)
- Corean Approval

CERE's Accreditation can be checked in:

<http://www.cerecertification.com/accreditations>



# What's CERE Certification?



**CERE** Certification is the Certification department of **CERE** (Certification Entity for Renewable Energies)

**CERE** Certification was created to be the access key on the target countries for Renewable Energies, where certification of components or full installations certificates were required.

The company fulfil all the requirements for being a Testing Laboratory and a Certification Body.

Our services include Testing and Certification according Safety, EMC, Grid Quality, grid connection requirements, design certification and complete installations Certificates.

This process includes Testing and Certification of Components such as PV modules, Wind and PV converters, trackers, transformers, string boxes, combiner boxes, etc.

Also, the Certification for full Power Plants according particular country requirements, DSO or TSO specifications.

# CERE Certification Profile

CERE's team has experience in Certification in more than 10 GW of renewable energy's components and installations for worldwide grid integration, design, safety, EMC and grid quality, among others.

During the last 5 years CERE has inspected, evaluated and certified more than 3GW of PV, Wind and Hydro, Power plants.

We aim to be your key to the access on the target countries for the Renewable Energies.



In order to be updated with the state of the art of the business, CERE participates actively in several International Standardization Committees.

# What's CERE Grid Code And Safety for Converters?



Each country and each grid has its own grid code which establishes the minimum requirements to get connected to the grid and feed energy on it. For example, in Spain, there is a particular grid code required for the transmission grid (PO12.2:2020) and another for the distribution grid (UNE217002:2020). Also, there is a particular requirement for the Zero injection systems connected to the grid (UNE217001:2020).

As indicated before, CERE as Testing Lab and Certification Body, has applied for the Accreditation Body (ILAC and IAF) to include this standards into their accreditation scope.

The same happens with the Safety standards. Each country has its own requirements, although many of them directly require the international safety standards.

Our services include Testing and Certification according Safety, Grid Quality and grid connection requirements for converters.

CERE's Scope includes more than 60 different grid connection standard, all international grid quality standards and all the safety standards for converters, giving access to converters manufacturers to the main markets worldwide.

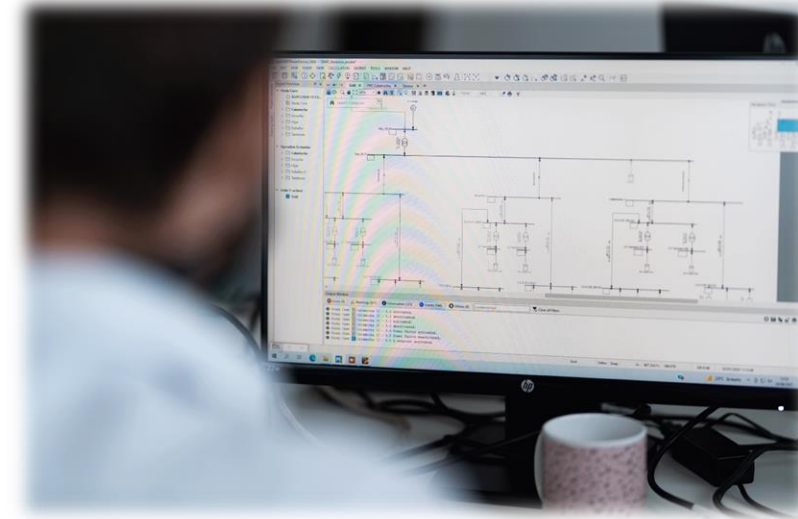


# What's CERE Simulation department?

**CERE** Simulation is the Simulation department of CERE (Certification Entity for Renewable Energies).

**CERE** Simulation was created as a part of CERE, to be the access key on the target countries for Renewable Energies, where modeling is required.

Our offering includes electrical studies such as modelling validation, electromagnetic transient analysis, Shortcircuit current, PQ diagram, grid quality, etc.



**CERE** Simulation personnel have more than 10 years experience in the field of grid code compliance studies and electrical assessment of renewable power plants

In order to be updated with the state of the art of the business, **CERE** Simulation actively participates in several International Standardization Committees related to electrical simulation models, apart from the Committees where **CERE** has presence.

## What's CERE Trackers?



**CERE** Trackers is a department created to cover the demand of services for transformers inside of CERE (Certification Entity for Renewable Energies)

**CERE** Trackers was created to provide support and trust at any stage of certification and testing of trackers.

Our services include preliminary meeting, Testing and Certification according Safety, EMC and UL standards.

This process includes testing, certification and verification of trackers and their components.

## What's CERE Batteries?

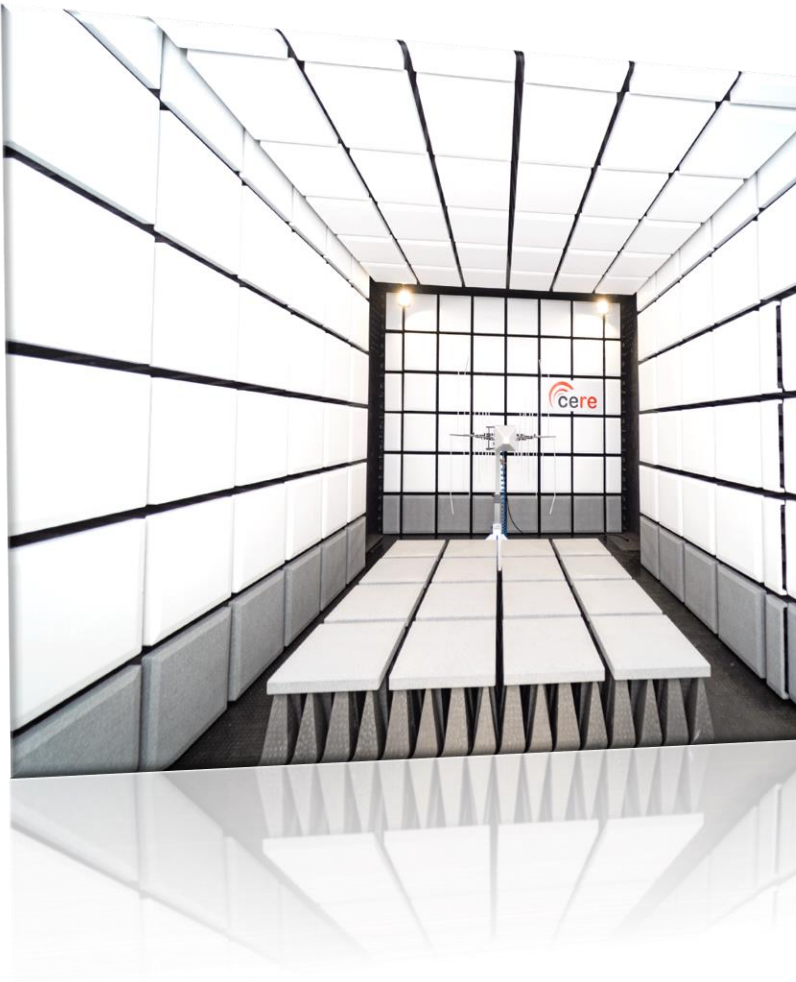


CERE Batteries is a department created to cover the demand of services for batteries and storage systems inside of CERE (Certification Entity for Renewable Energies)

CERE Batteries was created to provide support and trust at any stage of certification and testing of batteries and storage systems

Our services include Testing and Certification according Safety standards. This process includes testing, certification and verification of batteries and storage systems and their components.

# What's CERE EMC?



EMC means Electromagnetic Compatibility, studies the unwanted effects of the generation, propagation and reception of electromagnetic energy.

An equipment is electromagnetically compatible when it is unaffected by the electromagnetic noise around it and does not interfere with other equipment.

Certifying a product is mandatory to be able to sell a product on the market. For this, you must follow the product standard that applies to each device.

The standards establish quite precisely the limits and tests that must be carried out to certify a product.

There are, among others, product standards and testing standards.

The product standards indicate the limits to which each test must be tested.

The test standards indicate the correct procedure to perform each of the tests.

## CERE EMC

Electromagnetic compatibility testing is the tool to ensure there are no interferences between different electronic equipment.

**CERE** tests and certificates under EMC standards both for emission and immunity in order to comply with the European directives and international requirements.

**CERE**'s team has performed EMC tests on equipment as on-field wind turbines, solar inverters, medical devices, household, IT, etcetera.

**CERE** has a team specialized in EMC tests on equipment as on-field wind turbines, solar inverters, medical devices, household, IT devices, etcetera.

**CERE** owns a Full-Anechoic Chamber

# What's CERE Electrical Vehicle Charger?



**CERE** Electrical Vehicle Charger is a department created to cover the demand of services for electrical vehicle charger system inside of CERE (Certification Entity for Renewable Energies)

**CERE** Electrical Vehicle Charger was created to provide support and trust at any stage of certification and testing of Electrical vehicle charger systems.

Our services include Testing and Certification according Safety standards.

This process includes testing, certification and verification of Electrical Vehicle Charger systems and their components.

The electrical laboratory has developed a section with expert technicians in this field. We have carried out tests for Spanish, Portuguese and German manufacturers, for the European and US market.

# What's CERE Transformers department?

**CERE** Transformers is a department created to cover the demand of services for transformers inside of CERE (Certification Entity for Renewable Energies)

**CERE** Transformers was created to provide support and trust at any stage of certification and testing of transformers



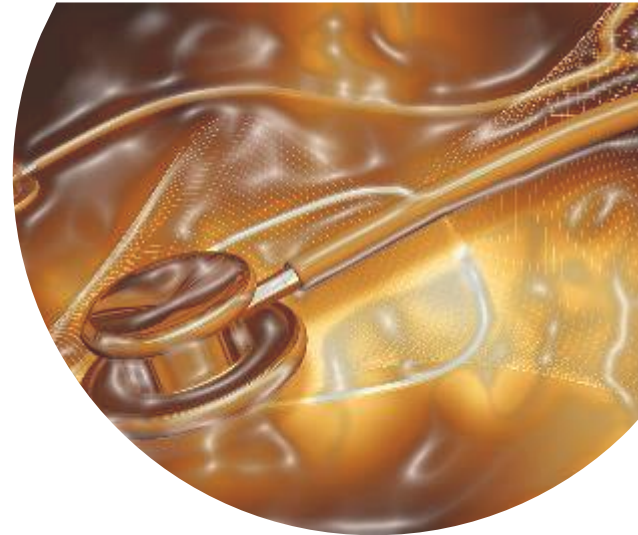
Our services include Testing and Certification according Safety standards.

This process includes testing, certification and verification of transformers and their components.

# What's CERE Medical Device Division?

**CERE** Medical is a department created to cover the demand of services for Medical devices inside of CERE

**CERE** Medical was created to provide support and trust at any stage of certification and testing of Safety, EMC and software for medical devices



Participation committees:

- **CERE** is active participant in the standardization committee CTN 209/SC 62 “Electrical Equipment in Medical Practice”
- **CERE** is participant in the standardization committee UL 60601-1 “Electrical Equipment in Medical and Dental Practice”.

Medical Device Division:

- Medical Device
- Medical Device without an intended Medical Purpose
- Aesthetic Device
- In-vitro Diagnostic Medical Device
- Software Medical



# What's CERE QMS (Quality Management System)?



The System Certification is a complex and lengthy process which requires careful preparation, strategic planning and expert knowledge. CERE's Certification Division has the experience to assist you with a successful voluntary.



The System Certification improves the perceived companies' quality within the international market, giving a competitive advantage over companies that are not certified, facilitating the access of foreign markets.



CERE's Certification Division has a team of 10 employees, including technical director and auditors with more than 10 years of experience in Management System Certification.

CERE's Certification Division is a quality certification entity, involved with the improvement processes of organizations.

## Contact us



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