

COP30 BRASIL



AMAZÔNIA
BELÉM 2025

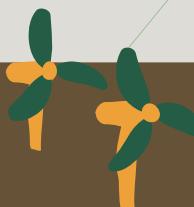
Inmetro brings sustainability and energy transition projects to COP-30 in Belém

Six initiatives from the Institute strengthen the quality infrastructure to support the country's climate goals and boost the green economy

The National Institute of Metrology, Quality, and Technology (Inmetro) will present a set of projects focused on sustainability, energy transition, and the decarbonization of the economy at the 30th United Nations Conference on Climate Change (COP-30) in Belém (PA). The event will take place from November 10 to 21, 2025.

The proposals, developed by the technical boards of the Institute, aim to strengthen the quality infrastructure to support the Nationally Determined Contributions (NDCs) and promote the growth of the green economy in the country. The agenda includes topics such as legal and scientific metrology, conformity assessment, electromobility, traceability of greenhouse gas (GHG) measurements, and voluntary sustainability standards.

CLEAN ENERGY AND ELECTROMOBILITY



The Directorate of Conformity Assessment (Dconf) and the Directorate of Legal Metrology (Dimel) will present integrated actions to ensure the safe advancement of the Brazilian electrical matrix.

Dconf is conducting a Regulatory Impact Analysis (RIA) on equipment that makes up the electromobility infrastructure, focusing on charging connectors and lithium-ion batteries.

In parallel, Dconf also works on improving the methodologies of the Brazilian Vehicle Labeling Program (PBEV), which assesses the energy efficiency of electric vehicles.

Dimel proposes the metrological regulation of refueling systems for electric vehicles, ensuring the performance of the meters and transparency in measurements during charging.

ARTIFICIAL INTELLIGENCE FOR CLIMATE



The Directorate of Scientific Metrology and Technology (Dimci) will present a project that combines artificial intelligence, edge computing, and blockchain to monitor and reduce greenhouse gas emissions.

The proposal intends to create an integrated system for analyzing and decarbonizing vehicle traffic, capable of estimating in real time the energy efficiency and emissions of automobiles — whether combustion, hybrid, or electric. The use of blockchain ensures data traceability and enables the generation of carbon credits in a transparent manner.

The project supports national decarbonization plans and seeks to promote sustainable urban mobility, climate justice, and access to new green financing mechanisms.

GREEN ECONOMY AND CERTIFICATION



Dconf also works in partnership with the Secretariat of Green Economy (SEV) of the Ministry of Development, Industry, Commerce, and Services (MDIC) in strategic programs such as the Green Seal, the Amazon Seal, and the Carbon Market. These actions aim to encourage sustainable production practices and expand Brazil's access to international climate finance.

RENEWABLE ENERGIES AND CLEAN GASES



The Fluid Dynamics Metrology Division (Dinam) enhances the reliability of anemometric measurements used in wind power generation. New anemometer calibration services will expand the measurement range to meet the growth of wind farms in the country.

The laboratory also works on developing solutions for carbon capture and ensuring traceability in CO₂ and hydrogen (H₂) measurements; strategic areas for advancing the energy transition.

EMISSION REDUCTION AND BIOFUELS



The Chemical Metrology Division (Dquim) develops Certified Reference Materials (CRMs) aimed at the use of biofuels, contributing to emission reduction and the international comparability of greenhouse gas measurements.

These studies strengthen technical safety and metrological traceability, essential factors for the credibility of emission inventories and for the advancement of decarbonization policies.

GLOBAL GOVERNANCE AND SUSTAINABLE



The Coordination of International Articulation (Caint) will present the Brazilian Platform of Voluntary Sustainability Standards (VSS), an initiative that maps standards applied to the green economy and international trade.

The goal is to consolidate a space for dialogue and knowledge on the subject, contributing to have proactive national policies that enhance the positive economic, social, and environmental effects of these regulations and reduce costs for the productive sector.



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