

■ **The National Renewable Energy Centre (CENER)** is a state-of-the-art technological centre dedicated to the research, development and promotion of renewable energies within Spain and beyond.

CENER offers a wide range of services and applied research, adapted to the needs of the business community, public bodies and institutions. It specialises in research and its direct applications, Research and Development and Innovation (R&D&I), with the aim of providing a high added value to its customers.

■ **CENER operates in six areas:** Wind power, photovoltaic and solar thermal energy, biomass, bioclimatic architecture, as well as power electronics and energy accumulation. CENER can provide laboratories and facilities which are equipped with the most innovative systems making it a centre of reference for all of Europe.

CENER participates in key lines of R&D, offers energy audits and studies, draws up regulatory standards, carries out technological transfers and leads training and educational programmes. It is also a member of several Standardization Committees.

Biomass Department

The BIOMASS Department at CENER carries out research activities into biomass applications for energy and provides services to those involved in the sector: associations, public administration, users, producers, financial entities, etc.

Their aim is to contribute to improving the technological economic exploitation conditions of this type of energy.

■ THE BIOMASS DEPARTMENT:

- This department is authorised by AENOR as the Spanish Representative in the standardisation process in CEN (task force no. CEN/TF/143).
- AEN/CTN-51 Oil Bearing Products SC 3 Fuel and AEN-CNT-164 Solid Biofuels.
- Forms part of a group of experts on bioenergy and energy crops of the IES-JRC (Institute for Environment Sustainability of the Joint Research Centre of the EC-Ispra)

■ ACTIVITIES:

- Resources evaluation and energy crops
- Biofuels
- Thermal and electric applications

Resources Evaluation and Biofuels:

■ Resources evaluation and energy crops:

- Evaluation of the biomass potential in a particular area
- Logistic analysis of biomass supplies
- Development of energy crops for the production of biofuels



■ Biofuels

Bioethanol:

- Assessment on Bioethanol production technologies
- Technical Assistance in Bioethanol: Process control and characterization
- Development of valorisation processes of agro-food waste and Lignocellulosic materials

Biodiesel:

- Assessment on Biodiesel production technologies
- Technical and Economical viability study of biodiesel projects
- Optimisation of raw material mixes and additives.

Biofuel Laboratory:

- Biomass Characterisation
- Pre-treatment (Lignocellulosic materials)
- Enzymatic hydrolysis-fermentation
- Biodiesel and bioethanol characterization
- Chromatographic techniques



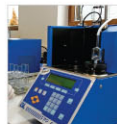
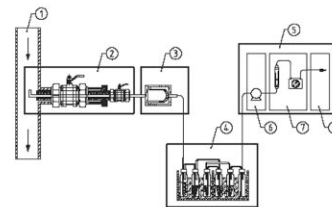
Thermal and Electric Applications:

- Technical assessment in gasification technologies
- Technical assessment in gasification gas cleaning
- Determination of particles and tars in gasification gas

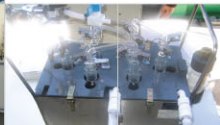


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ENERGÍA DE LA BIOMASA

