lnbr
brazilian biorenewables
national laboratory

LNBR is part of the Brazilian Center for Research in Energy and Materials (CNPEM), a non-profit private organization, located in Campinas-SP, Brazil, supervised by the Brazilian Ministry of Science, Technology, Innovation and Communications (MCTIC).

One of its main projects is **SUCRE (Sugarcane Renewable Electricity)**, funded by the Global Environment Facility (GEF) and managed in partnership with the United Nations Development Program (UNDP).

INITIAL PHASE

1. Evaluate and promote economically viable technologies for straw collection, processing and burning for electricity generation.
2. Comprehend the agronomic and environmental effects of straw collecting on the crop and harvest cycle of sugarcane.
3. Identify barriers and suggests reformulations on the legal and regulatory energy framework to promote electricity generation at the mills.

FINAL PHASE

Disseminate the environmental and economic guidelines for sugarcane straw use throughout the sugarcane industry, according to lessons learned and results obtained by the Project. Conduct studies of technical-economic and environmental viability of straw use in at least seven sugarcane mills interested on initiating or expand its surplus electricity production.

WORK TEAMS

TECHNICAL
Evaluate and suggests technological solutions for straw collecting, processing and burning at the mills.

ECONOMIC
Demonstrate the economic viability of straw collection for electric power generation.

AGRI-ENVIRONMETAL
Evaluate agronomic and environmental impacts of straw collection from the field.

LEGAL AND REGULATORY
Suggest adaptations on the electric sector regulatory framework for sugarcane biomass energy.

DISSEMINATION
Spread the results for the sugarcane sector and disseminate straw use as a complement to bagasse on electricity generation.

MANAGEMENT
Act in the operational planning, supervision and management of the Project.

SUSTAINABLE DEVELOPMENT GOALS

SUCRE

Implemented by **LNBR/CNPEM**, **SUCRE Project** aims to reduce greenhouse gases emissions through the expansion of bioelectricity generated from sugarcane straw. Sugarcane biomass as electricity source has a high contribution potential to the Brazilian energy matrix with its environmental, economic and social benefits. SUCRE is part of the Sustainable Development Goals (SDG) agenda, established by the United Nations.

7 AFFORDABLE AND CLEAN ENERGY

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

15 LIFE ON LAND

Techno-economic feasibility

Greenhouse gases reduction

Straw collection technology

Sustainability

Barriers transposition

Demonstration in commercial sugarcane mills

Dissemination and training

Electricity generation

Agri-environmental and social effects

Regulatory framework contribution

Contracts negotiation support

Technologies disclosure

Management of straw in the field

8 DECENT WORK AND ECONOMIC GROWTH

13 CLIMATE ACTION

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