

Eucalyptus Integrated Wood Processing Project

LIFE12 ENV/ES/000913



LIFE EUCALYPTUS ENERGY is a collaborative project funded by the European Commission (LIFE+ programme). The project is coordinated by Ingemas in collaboration with ASMADERA, Fundación CARTIF and CPL Industries

The **general objective** of the project is the design and construction of a pyrolysis demonstration plant of eucalyptus biomass for electricity and heat production as well as the production of biochar for soil application as fertilizer.

Other objectives of the project are:

- Optimization and sustainability of electrical production from eucalyptus biomass, i.e. Eucalyptus branches and leaves.
- Utilization of the biochar obtained as a carbon abatement technology or as a biofuel.
- Integration of biomass harvest, pyrolysis, syngas clean-up, electricity generation and biochar utilization processes.
- Forest improvement by increasing wood yields, prevention soil erosion, tree diseases and forest fires.
- Increase of the economic activity of rural areas by adding value to residues and increasing soil fertility.
- Revalorization of pyrolysis liquids as an alternative source of fuel and chemicals.
- Dissemination of the Eucalyptus Integrated Wood Processing Project to forestry managers, farmers, industry, academics, legislators and the general public.

Actions of the project:

- Plant design: This action will require the coordination of all the partners using their engineering and scientific skills.
- Integration of the project technologies: This action is critical for the success of the project. All the systems and equipment design for the partners need to be coordinated to construct a fully operational plant.
- Plant construction: All the actions to be finished on time to have an operational plant.
- Plant optimization: The plant needs to obtain the maximum energy and products production with a high efficiency to increase the sustainability of the system.
- Plant operation: Products will be generated to prove the concept and to conduct further actions.
- Biochar Aplicacion and field experiments: Biochar will need to be applied before the plantation of eucalyptus in the field and data from the experiments such as biomass production will be collected.
- Plant results analysis: All the technical, economic, social and environmental data obtained from the previous actions will be collected and studied.
- Project dissemination: The result of the project will be disseminated to maximise the impact of the project.

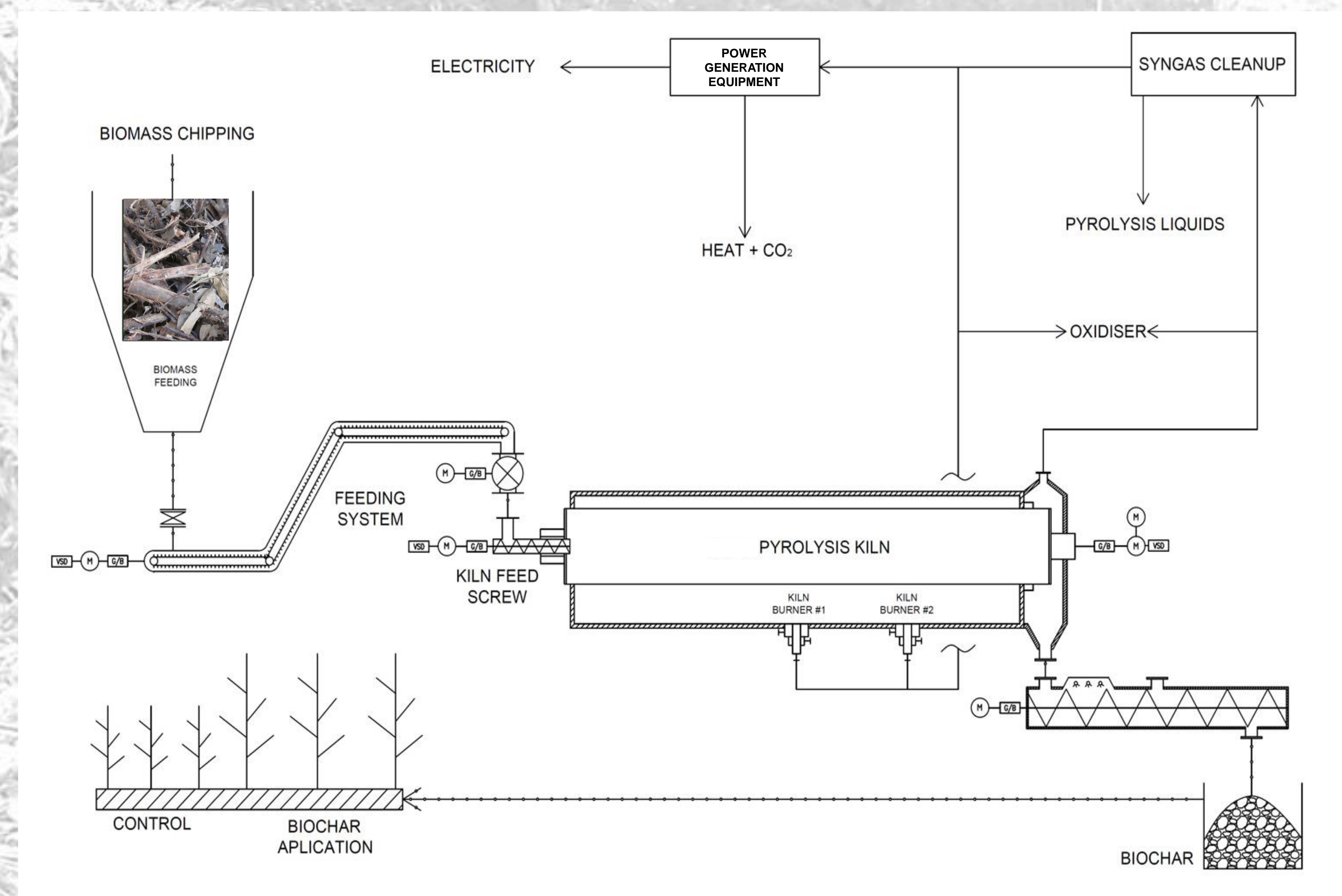


Figure 1. Process Flowsheet.