



PROJECT

BELENUS

Lowering costs by improving efficiencies in biomass and fueled boilers to reduce corrosion

The primary goal of BELENUS is to increase the durability of the tube joints in the boiler by 20%, to increase the efficiency and lifetime of the Biomass Plants an 40-42% and 25% respectively, and to reduce fuel costs by 10-15%.



This project has received funding from the European Union's Horizon2020 Research and Innovation Programme under Grant Agreement N° 815147

14

PARTNERS

6

COUNTRIES

€5 M

TOTAL BUDGET

4

YEARS



EN UN CLICK

Coordinador	Programa	Fechas
Universidad Complutense de Madrid	H2020	2019 – 2023
Sector	Web	
Energy	https://belenus-project.eu/	

01 Challenge

The primary goal of BELENUS is to lower bioenergy CAPEX and OPEX by an average of 1.03% and 40% respectively.

02 Solution

BELENUS solution will by prevent or mitigate corrosion as the main limiting factor for biomass boost, through a holistic approach to prevent corrosion in the boiler, in particular in superheater (SH) tubes

03 Impacts

BELENUS will reduce the CAPEX of Biomass in CHP plants, the OPEX of Biomass in CHP plants and fuel consumption. It will also increase the production hours of Biomass CHP plants, along with the yield of biomass to energy conversion and the presence of bioenergy share in energy mix. It also aims to reduce the means of CO2 emissions and increase the biomass waste valorisation and the acceptance of the technology by social groups. In this way, it will increase the employment rate after the project's implementation and will network with stakeholders in other relevant sectors.