## BIOMASS ENERGY Bio-sourced energy

Interreg

Co-funded by the European Union

RE-Greenhouse

## **ENERGY TRANSITION :**

**BIOMASS CHOICE** 

Since the IFSB was built in 2006, the building has been heated using biomass, specifically pellets. In 2022, the 100 kW boiler was replaced by two 100 kW boilers in cascade.

This system heats the greenhouse on our restaurant roof with a low-carbon biofuel. We kept a 100 kW gas boiler for backup heating when needed.



Two 100kW pellet boilers



Double-flow ventilation

## **ENERGY OPTIMIZATION :** HEAT RECOVERY FROM DOUBLE-FLOW VENTILATION

The building's ventilation system can direct exhaust air into the greenhouse, recovering residual heat and supplying CO2 from the building's occupants.

## ENERGY AUTONOMY : POWERED BY SOLAR ENERGY

Since 2024, 474 solar panels (218 flexible and 256 rigid) were installed on the IFSB rooftops, producing around 190 MWh per year. This fully powers the greenhouse, with the excess used by the building. We may consider adding "photosynthetic" lighting based on actual energy production.



Solar Panels on the IFSB rooftops

RE-Greenhouse is an Interreg NWE project aimed at accelerating the transition from fossil fuels to renewable energy in greenhouse horticulture. Follow the project website for more information.



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