

# CEFS CLIMATE NEUTRALITY TOOLBOX



## ➤ BEET SUGAR PRODUCTION IS HIGHLY SPECIFIC

Factories are located in **rural areas** often far from high-voltage electricity grids -> full electrification prohibitively expensive/ not feasible in many cases



Production campaigns run **c. 90-150 days**, meaning energy stations must be bigger than in industries working year-round

High energy requirements - **large amounts of heat required** to evaporate water from around 100m tonnes of sugar beet annually

Every sugar factory has a **different configuration** and produces different products, resulting in varying energy requirements



## ➤ THE ROLE OF RENEWABLES - OUR OPTIONS

**Energetic use of residues:** Beet pulp and other residues can be fermented to produce biogas or combusted as solid biomass fuel!



External: **biomass & biomethane** from local gas grid



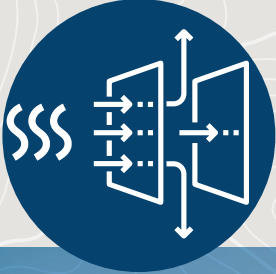
Supplementary renewables: On-site **solar panels & wind turbines**





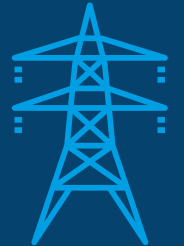


## OTHER DECARBONISATION TOOLS



### Heat recovery:

Saving energy by re-using waste heat (e.g. evaporation, drying of beet pulp)



### Process electrification:

Reducing heat demand by electrifying part of the sugar production process (e.g. heat pumps)

### KEY FACT



To decarbonise effectively, we need financial support and a supportive policy framework!

CEFS calls for a sensible implementation of the RED III by Member States to facilitate energetic use of sugar beet residues and a revised Energy Taxation Directive that recognises the crucial role of biomass fuels.

