

Cornerways Nursery, Wissington, UK Combined Heat and Power (CHP)

Cornerways Nursery in Wissington re-uses heat and carbon dioxide (CO₂) from the neighbouring British Sugar factory to help with the energy-efficient cultivation of tomatoes.

Unlike conventional British (and other northern European) greenhouses used for this type of crop, the greenhouse at Wissington uses no fuel for heating. All the heat needed to maintain a year-round growing temperature of around 20°C is provided by the combined heat and power (CHP) system in the adjacent British Sugar processing plant.



The CHP system generates over 70 MW of electricity which powers the factory and around 100,000 nearby homes. It also produces steam and high temperature water for use in sugar processing.

Low-grade heat from the CHP system, in the form of hot water, is piped to Cornerways Nursery to heat the 10.7 hectare greenhouses.



A duct connecting the factory to the greenhouses also provides around 2,400 m³ per hour of CO₂-rich flue gas. Some of the CO₂ is absorbed by the growing tomatoes, further reducing the 'greenhouse gas' emissions from the sugar factory.

The story goes further than just the resources from the factory - the nursery stores and re-circulates all its rain and runoff water, green waste is composted in a unique system and of course pests are controlled by bio-control.

With pollination from 5,000 bees, the site produces about 70 million tomatoes from February to November each year.