

# Stewarts Garden Centres



**Project cost**  
£689,662.84

**Estimated Savings**  
£50k / 450 tonnes of CO<sub>2</sub>e per year

**Equipment / Installer**  
Drewlec and GF Electrical – LEDs, Empower – Solar PV, RTJ – fast action roller door, Ebtech – Ground source heat pump (GSHP) system and Thermal Screens, Greendale – extra GSHP plant room civils

**Grant awarded:**  
**£275,865.14**

**Estimated Annual Savings:**  
**£50k / 450 tonnes of CO<sub>2</sub>e\***

## The Project

Stewarts is a family run business in Dorset who run three garden centres, a nursery and a landscaping division. In a drive to become more environmentally and financially sustainable they installed 179kWp of solar PV on the roofs of their two Dorset garden centres, installed LED lighting at both sites, and invested in a ground-source heat pump and thermal screens for their new 8,000 sq m glasshouse.

Combined these measures reduced Stewarts' footprint by around 450 tonnes of CO<sub>2</sub>e a year and will save about £50k in electricity costs each year.

## Getting started

The Stewarts team were first introduced to Low Carbon Dorset in early 2019 with a clear objective to reduce their company's carbon footprint. They had already begun planning for a new 8,000sq m glass house at their site in Broomhill and were keen to minimise its environmental impact and reduce that of their existing sites.



\*CO<sub>2</sub>e, or carbon dioxide equivalent, is a term used to describe different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO<sub>2</sub>e signifies the amount of CO<sub>2</sub> which would have the equivalent global warming impact. And allows us to express a carbon footprint consisting of lots of different greenhouse gases as a single number.

## Ground-source Heat Pump

The new glass house will have a large heating demand and Stewarts were eager to find an alternative fuel source to oil. But they soon discovered that a low-carbon alternative would cost them over £250k more. A grant from Low Carbon Dorset made this option more affordable, and they were able to change their plans to incorporate a 500-kW ground-source heat pump (GSHP) in place of an oil boiler. The funding also supported the installation of thermal screens in the glass house to reduce heat loss. These panels will reduce the heating demand in the building by 30%.

## Solar PV and LEDs

Stewarts' carbon reduction efforts stretched beyond just their Broomhill site, and with the technical and financial help of Low Carbon Dorset they were also able to install 279kWp of solar PV, a fast action roller door, and LED lights across two garden centres. Combined these measures alone will save Stewarts around £50k a year in electricity costs and should pay for themselves in just over five years.

'At Stewarts we aim to be at the forefront of green issues in the way that we operate and with the support of Low Carbon Dorset we are making significant progress in reducing our carbon footprint.'

Chris Wright, Finance Director

'The LED lighting has made such a difference, with a consistent light level across the garden centres. Both centres feel so much brighter.'

Terry Head, Retail & Marketing Director



European Union  
European Regional  
Development Fund