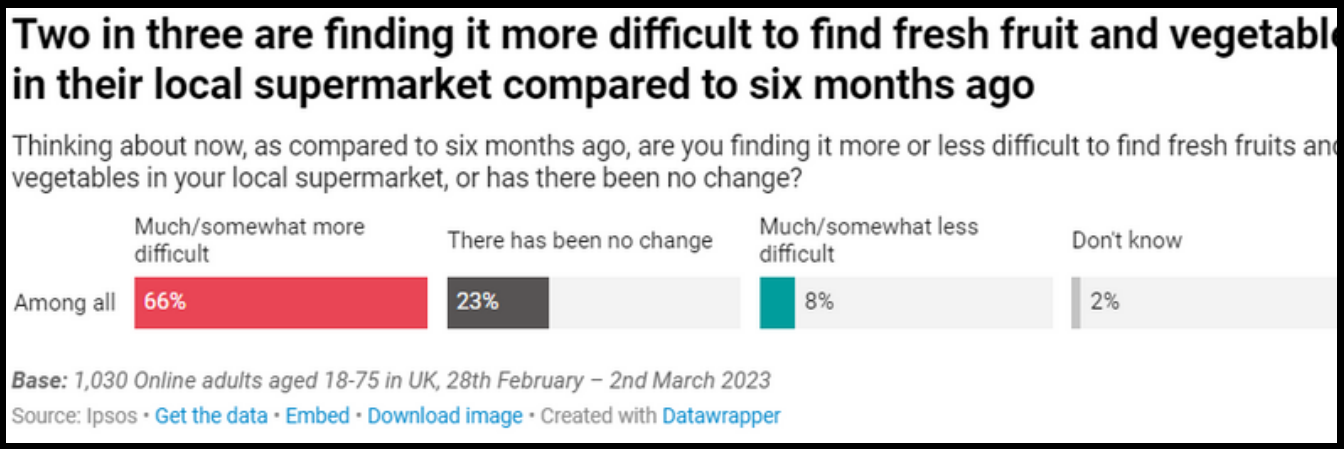
Helix-50 Ltd

CASE STUDY

Charltons

The Problem:

The escalation of energy prices are significantly impacting the agricultural sector and rural areas. As a result of this, **Charltons** were faced with many concerns. Charltons are a family run business with over half a century of experience in growing and packing quality top, stone and soft fruit; hence, has a very high energy demand. Therefore, the rising energy prices are not only increasing production costs but are also creating market uncertainty and straining the financial stability of farmers. Because of the high energy demand and short time periods, they have no control over their income and supply. Charlton's main issue was that the grid capacity in the area wasn't enough to meet their demands along with the volatility of the energy price. Thus, the short-term impacts this has on the business is trying to plan their expenditure is very difficult and from a business perspective, cannot anticipate expenses, plan for major increases in costs and even make changes depending on operational needs. Whilst the long-term impacts are not being able to set goals, communicate priorities or create reports for potential investors.



As evidenced here, 66% of the participants are finding it more difficult to find fresh fruit and vegetables in their local supermarkets. This demonstrates the struggles that growers are facing.

Financial benefits of solar panels:

One of the most attractive financial benefits of commercial solar is that it allows you to rely less on the National Grid. This means that you benefit from reduced utility costs and increased energy security – since you're not drawing energy from the national supply, you're not as heavily affected by all the spikes and troughs in the market. In Charlton's case, this ensures that their high energy demand can be met as they do not have to solely rely on the grid. In addition to this, because they will not be drawing from the national supply, they will not be as heavily affected by the spikes and troughs in the market.

Environmental benefits of solar panels for commercial premises:

Commercial solar panels provide a reliable and effective way of reducing your carbon footprint, which often makes them an integral part of any long-term sustainability strategy. The volume of carbon emissions you could potentially save can be especially high if you run corporation, or a business with lots of power-intensive facilities. Alongside this, they can serve as a very clear and visible sign of your green credentials. This can put you one step ahead of your competitors in today's increasingly climate-conscious society, where customers, investors and business partners are often making decisions about which business to associate with based on their commitment to climate or environmental goals.

Assessment:

We conducted extensive surveys to identify:

- Any potential challenges that may occur
- Heating source and efficiency
- Current lighting arrangements to be made in both quality and costs to run
- Half hourly data
- Negotiations with the grid to confirm the available capacity for connections

Solutions:

Building A - 546 panels
Building B - 1748 panels
Building C & D - 717 panels

Costs and Savings:

The Rumwood Farm Solar PV installation has been completed with just under 3000 panels installed in the array across the complex. The solar installation has enabled to farm to negate 1290 metric tons carbon dioxide emissions.
Per year this is equivalent to CO2 emissions from:

- 3201554 miles driven by an average petrol-powered vehichle
- 1427049 pounds of coal burned
- 162 homes' energy use for one year