Success Story:

Colchester Institute

How the college is managing energy costs, investing in renewable generation and creating a more sustainable estate for future generations of students.

At a glance:

55% Reduction in carbon emissions in six years

972 Solar PV panels generating 15% of the electricity used

£8m+ invested in decarbonisation



Balancing the demands of a changing estate

For Colchester Institute, managing energy is about more than keeping the lights on. As one of Essex's established further education providers, the college operates a varied estate of teaching buildings, workshops and specialist facilities, while continuing to invest in the skills and training its students will need for the future.

Managing a diverse estate comes with its own challenges, particularly when budgets need to stretch across day-to-day operations, building improvements and investment in modern teaching facilities. At the same time, the college has made sustainability an important part of its plans, both in how it operates and what it teaches.

Balancing these priorities has meant taking a closer look at where energy is being used, what it costs and where investment can make the greatest difference.



Getting energy costs under control

When Colchester Institute began working with Trident in 2021, managing energy costs was already an important priority. Having spent years consolidating its estate and managing operating costs, the college found itself tied into expensive energy contracts arranged through its previous provider. With Trident's support, the college was able to explore alternative arrangements and move away from contracts that were proving costly.

The financial difference was significant. Gary Horne MBE, Deputy Chief Executive at Colchester Institute, estimates that the subsequent procurement arrangements reduced the college's commodity energy costs by approximately two-thirds compared with what it had previously been paying.

What began as a need to address energy expenditure soon developed into a wider relationship, as the college began looking more closely at the performance of its buildings and its environmental responsibilities.

Understanding where improvements can be made

In 2021, Colchester Institute declared a climate emergency, recognising that its responsibilities extended beyond educating students to reducing the environmental impact of its own operations.

To understand where improvements were possible, the college needed reliable information about its energy consumption and carbon emissions. Trident supported the college in establishing its 2021 carbon emissions baseline through Streamlined Energy and Carbon Reporting (SECR), giving it a reference point against which to measure future progress.

Alongside this, Trident's Pulse software and the college's reinstated sub-metering equipment provided greater visibility of consumption across individual campuses and buildings. Rather than relying solely on overall energy bills, the estates team could examine usage patterns, identify less efficient areas and make more informed decisions about where to invest.



"We have a responsibility as educators to make sure our students and stakeholders understand the climate challenges ahead but also the solutions"

Gary Horne MBE,
Deputy Chief Executive, Colchester Institute

Turning recommendations into results

One of the clearest examples came in 2022, when Trident carried out energy assessments across the Colchester and Braintree campuses. The surveys identified several opportunities for improvement, including the installation of solar panels at Braintree. Trident assessed the anticipated financial return and helped coordinate the project, with Low Carbon Energy installing **213 panels**.

The installation has since become the college's best-performing solar array. According to Gary, solar generation now meets around half of the Braintree campus's electricity requirements, reducing the amount of electricity the college needs to purchase. It forms part of a much wider investment programme led by Colchester Institute. Across its estate, the college now has **972 solar panels** generating approximately **15% of its electricity**, alongside improvements to heating, building efficiency and other infrastructure.

Since establishing its emissions baseline in 2020/21, Colchester Institute has reduced its carbon emissions by **55%**, achieving its interim reduction target four years ahead of schedule. This progress reflects investment and changes across the organisation, with Trident supporting specific areas including energy monitoring, carbon reporting and renewable generation.

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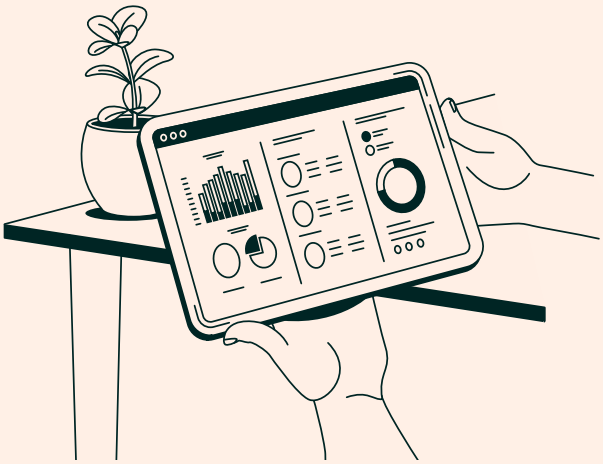



"We've worked with Colchester Institute for several years now, and it's been great to see how much they've achieved. What started with helping them manage their energy costs has developed into a much wider relationship. We understand what they're trying to achieve, both financially and environmentally, and that means we can support them as their priorities change."

Michael Dugdale

Managing Director, Trident

Investing in the next generation



For Colchester Institute, the benefits extend into the student experience. Its sustainability trail helps students understand the environmental improvements taking place around them, while investment in its Net Zero and Renewables Centre and the **£5 million** Sustainable Construction Centre, which opened in September 2026, is helping prepare learners for changing industry needs.

There is more to come. With two additional solar arrays due to come on stream next year, the college is aiming to generate **20% of its electricity on- site**. Plans also include improvements to older buildings and a growing focus on emissions associated with procurement, travel and other activities.

Trident continues to support the college with energy procurement, monitoring, reporting and consultancy as those priorities develop. For Gary and his team, having a clearer understanding of energy performance means they can consider future investment with greater confidence, balancing the cost of running the estate with the college's commitment to providing modern, sustainable facilities for its students.



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Gary Horne MBE,
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