mitie

PLAN ZERO

A green light for decarbonisation

Discover how schools can decarbonise with solar PV – securing energy and cutting costs.

Driving decarbonisation initiatives has never been more important.

The extent of the global climate emergency is no secret, and the responsibility this places on organisations in every sector is now beginning to dawn.

For the UK to win the race to net zero it will take involvement from everyone. But what specifically does that mean for professionals like you in the primary and secondary education sector?

The time to act is now

With government commitments and society becoming ever-more aware of environmental issues and their impacts, driving decarbonisation initiatives is a priority right across the schools sector.

However, with often restrictive budgets, knowing how to tackle decarbonisation, and which solutions will have the biggest impact on your school buildings, isn't always straightforward.

At Mitie, we've spent the last decade helping organisations decarbonise, so we're familiar with the challenges you face.

In this short guide, we'll explore the five biggest obstacles to decarbonisation – and how to overcome them.

Did you know?

Schools and universities create 36% of the UK's public sector building emissions.

Source: Let's Go Zero

CONTENTS

CHALLENGE ONE

Building a business case for solutions like solar PV

CHALLENGE TWO

Seeing the big picture

CHALLENGE THREE

Gaining funding for net zero activity

CHALLENGE FOUR

Optimising the built environment

CHALLENGE FIVE

Monitoring, reporting and staying compliant

CHALLENGE ONE

Building a business case for solutions like solar PV

Gain the support you need for decarbonisation projects

The project decision-making and funding process varies widely. In each instance, building a robust business case for decarbonisation initiatives, such as solar photovoltaic or PV, is vital in gaining support to get them off the ground.

So how do you build a business case that encourages investment?

CHALLENGE ONE

Highlight the benefits

First, you must present the benefits of allocating budgets to carbon reduction projects – and there are many, including significant financial incentives.

You can experience big savings through reduced energy consumption and carbon offset funds. And technologies like solar PV can help you produce your own energy and reduce reliance on an unpredictable and expensive National Grid. In fact, the technology behind solar panels has improved so much that they now have **payback cycles of as little as three to five years** and can dramatically reduce energy costs and emissions.

These facts are critical to engage and gain the support of stakeholders, who may include estate managers, business managers, teaching colleagues, senior leaders and Trust management.

In the long term, every outgoing on decarbonisation initiatives is an investment, which will either pay dividends or result in a greener future for your primary or secondary school. So be clear about how and when these investments will pay off so everyone can see you're on the path to something hugely beneficial.

That's step one…

CHALLENGE ONE

Showcase the alternative

The second step is to highlight the imminent need and consequences of inaction.

This is a climate emergency – and we all have targets to meet and an obligation to taper our impact on the planet. But there can also be significant reputational and financial impacts for not taking action.

In primary schools, parents may prefer to send their young children where care for the environment and our planet's future is a priority. And in secondary schools, both parents and students may prefer to be associated with a sustainability-focused establishment.

Short on capital?

We understand that funding is a challenge across primary and secondary schools.

However, **some options don't require capital:**

- Asset finance / Power Purchase Agreements (PPAs)
- Grant funding

There are also financing options that turn decarbonisation investments into an operational expense, rather than an upfront cost.

We will help you to review and assess everything available to your organisation. To learn more see 'Challenge three' – or talk to one of our experts.

Your business case should include:

- An all-encompassing view of your built environment, including electricity use, waste management and modernisation opportunities.
- Goals and KPIs
- Assessments of solutions in line with those goals and KPIs
- Metrics to show expected investments and returns
- A plan that combines quick-win savings and long-term cost benefits
- An overview of possible funding sources

CASE STUDY

We offer:

Consultancy and feasibility

Design Engineering

Development

Installation and Commissioning

Operations and Maintenance

How solar PV reduced bills and emissions for St Mary's Catholic High School

This thriving Catholic Voluntary Academy in North East Derbyshire has over 1200 students – and an energy demand to match.

Due to before and after-school clubs, power is required 12 hours a day, from 7am to 7pm. Management realised action was needed in order to reduce spiralling electricity bills.

Design, maintenance and everything in between...

Custom Solar, part of the Mitie group of businesses, was contracted to deliver a 279.76kWp solar project. Careful consideration was given to providing the appropriate solar array for the site. The installation used 1076 solar panels, capable of generating 240,465kWh of energy and reducing emissions by 127 tonnes annually.

That's equivalent to the carbon absorption of nearly **6,000 mature trees** each year.

The funded energy model adopted by the school has seen electrical demand from the grid decrease while savings against energy use have increased. Custom Solar provided learning materials for the students to learn more about solar PV and other renewable solutions.

CHALLENGE TWO

Seeing the big picture

The built environment plays a major part in the UK's carbon output, contributing to around a quarter of all emissions.

Many primary and secondary schools have old and inefficient buildings, as well as portable classrooms. Such buildings often lack features that contribute to sustainability and this must be considered when addressing decarbonisation in schools.

However, it's important to look at the wider picture, too.

After all, schools will play a crucial role in helping the UK reach net zero. They have the potential to prevent 625,000 tonnes of CO_2 entering the atmosphere.

So how do you keep track of it all?

CHALLENGE TWO

Gain a detailed picture of everything, everywhere

At Mitie, we use sensor technology and analytics to gain a detailed picture of what's important. That means total energy use in primary and secondary schools, together with recycling rates. It also includes the supply chain impacts of the largest institutions.

In doing so, we identify inefficiencies and prioritise solutions across Scope 1, Scope 2 and Scope 3 emissions. Like automating and optimising lighting and HVAC use in assembly halls. Or finding more carbon-friendly suppliers to reduce the impacts of supply chains.

What are scope 1, 2, and 3 emissions?

Scope 1 – Direct emissions from things you own and control

Scope 2 – Emissions used to produce the electricity you consume

Scope 3 – Indirect emissions from supply chains and contracted services

CHALLENGE THREE

Gaining funding for your school's net zero projects

Select the right source of funding

It's easy to say that net zero projects are investments, not expenses. But that money still has to come from somewhere, and in primary and secondary schools, small budgets are often required to go a long way.

Thankfully, there are numerous public sector grants and loans available to primary and secondary schools for this very purpose. In fact, over three phases, the Public Sector Decarbonisation Scheme has already allocated over £2.5bn in grants to support hundreds of public sector heat decarbonisation projects. Many are in primary and secondary schools.

But how do you know which funding options align with your goals?

CHALLENGE THREE

Let an expert support your projects

At Mitie, we regularly help primary and secondary schools identify the best decarbonisation solutions for their needs – and then help them gain the funding to see those projects to completion. We also have our own funding partners who will install solar PV and supply power generation to primary and secondary schools under a PPA agreement.

Relying on an expert to help with this process not only makes sure you have the correct resources to see a significant impact, but also removes a huge amount of workload.

£25,000

a year could be saved by a typical school on their energy bill through the installation of solar panels and complementary solutions.

Source: gov.uk

CHALLENGE FOUR

Optimising the built environment

Reassess your use of space

Today's primary and secondary school estates often show their age. So, it should come as no surprise that inefficient site management can be a major source of carbon emissions and unnecessary costs for education providers.

However, the modern world presents new challenges. There is a blend of in-person and online learning styles, with staff and pupils no longer always on-site.

This means it's more important than ever to reassess the way buildings are used and understand what measures can be taken to optimise their roles and reduce their environmental impact.

But how do you do that?

CHALLENGE FOUR

It all starts with a bird's eye view

The first step is to take a bird's eye view of your whole property portfolio and ask whether it's suitable for today's world.

Do you really need the same footprint as you had before? Are there perhaps better uses for some of your spaces that would bring greater efficiency?

For particularly large primary and secondary schools, divesting some of the estate might be an option.

When large-scale decarbonisation demands seem daunting, managing what you already have more effectively can be a great starting point.

There are many quick wins to be had along the way – and there are a host of technologies and solutions that contribute to your environments running more efficiently.

Improve efficiency, lower costs and reduce carbon emissions with:

Energy generation
including solar panels and wind power

Clean energy alternatives
including heat pumps and electric vehicles

LED lighting
presents one of the biggest energy saving opportunities in primary and secondary schools

Building modernisation
including footfall sensors and automatic timers, to ensure lights and HVAC systems are only in operation when needed

Proactive maintenance
to make sure systems perform at optimum efficiency, reducing emissions and costs

Waste and water management services
to limit carbon impacts on the environment and meet ESG initiatives

CHALLENGE FIVE

Monitoring, reporting and staying compliant

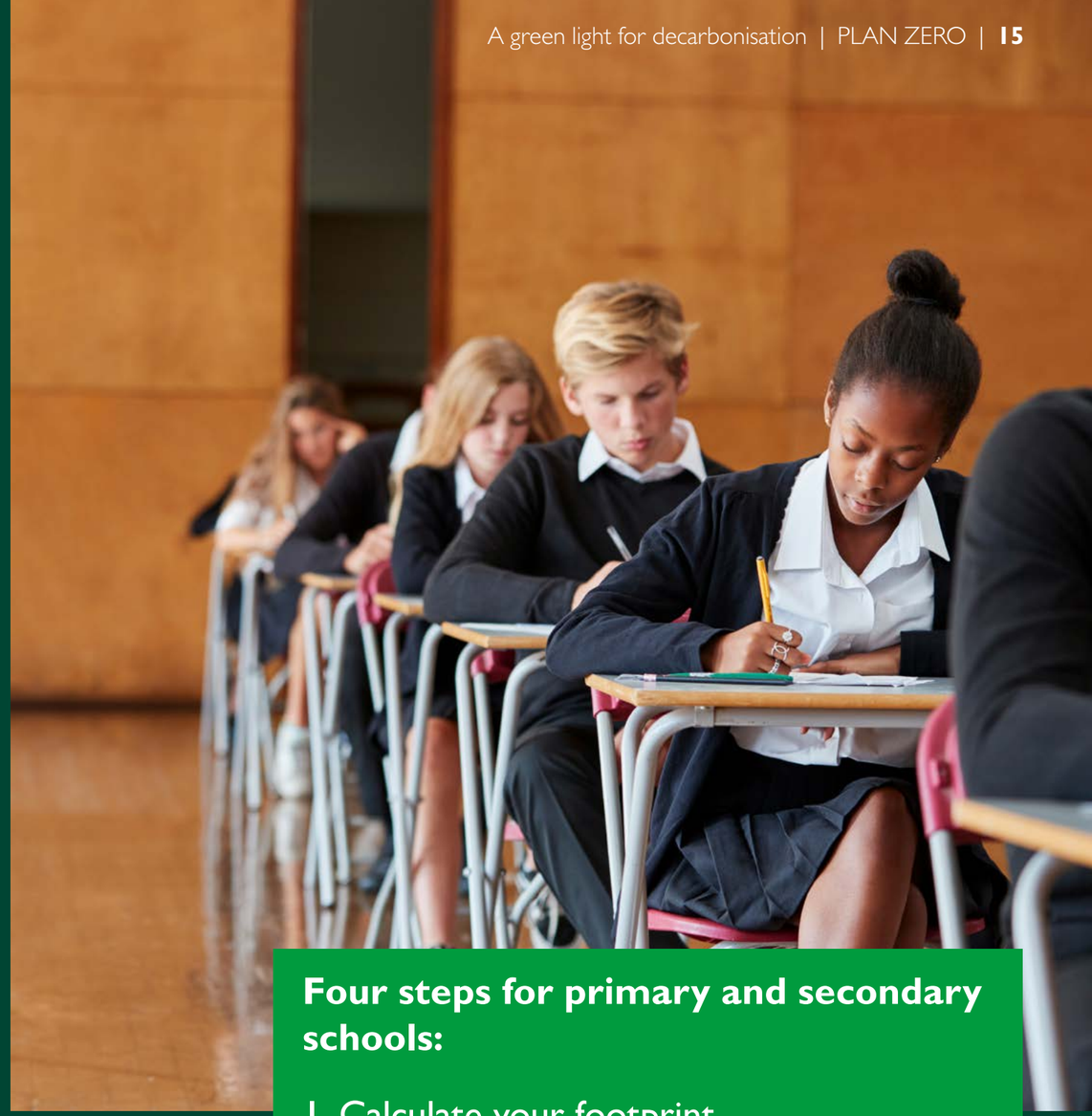
Establish robust and repeatable processes

Decarbonisation isn't a one-and-done affair. To implement the most effective strategy, you need to monitor your progress, continually improve performance and make sure you keep up with the latest legislation to remain compliant as changes take place.

It's a lot to take care of, and these things can't just be done on the fly. Instead, it's important that you establish robust and repeatable carbon reporting and compliance processes.

The problem is, the level of energy data available in primary and secondary schools is often substandard. And data is vital in assessing your progress and guiding your strategies and actions going forwards.

This, once again, takes us back to our first step – establishing the processes that provide a granular view of your carbon emissions.



Four steps for primary and secondary schools:

1. Calculate your footprint
2. Write a climate action plan
3. Monitor your progress
4. Keep up to date with emerging best practice and legislation

Meet Mitie

At Mitie we have deep experience driving end-to-end decarbonisation projects for primary and secondary schools.

From assessing your environment, building a business case and securing funding, to designing, installing and maintaining the latest green technologies, we provide everything you need for a greener future

To find out how we can support your plans, visit our website.

FIND OUT MORE

We've supported decarbonisation strategies for the following clients.

ABP Associated British Ports

BAE SYSTEMS

Sutton

Portsmouth International Port

NHS West Midlands Ambulance Service University NHS Foundation Trust

Hampshire County Council