SP Energy Networks

Community Energy

SP Energy Networks community support case studies

Formby High School

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Formby High School, Formby, England

Location: Formby High School, Formby, England

Development stage: Operational

Organisations involved: Formby High School, Solar for Schools and Sefton Council (the superior landlord for the school)

Technology type: Roof-mounted solar

Generating capacity and output: 204 kW peak capacity, generating 4.14 GWh over 25 years (enough to power 1,533 UK homes based on average annual household consumption of 2,700 kWh).

Business model: Delivered through Solar for Schools' Community Benefit Society (CBS), combining investment, long-term energy agreements and grant funding to limit upfront cost and risk for schools.

Finance: For Formby, the system was 100% funded through Solar for Schools CBS (no contribution from the school) with a Power Purchase Agreement (PPA) rate for electricity of 16.8p per kWh, lower than the average cost for electricity in 2025 of 25.73p per kWh.

Community benefit: £172,163 in forecast savings over 25 years, plus educational tools, live solar data and curriculum-linked resources that embed sustainability across the school.

What is solar photovoltaics (PV)?

Solar panels, or solar PV, capture the sun's energy and convert it into electricity. They can be installed on roofs (known as roof-mounted solar) or on the ground (known as ground-mounted solar).

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Overcoming barriers to renewable energy in schools

Like many schools across the UK, Formby High School was facing rising energy costs and increasing pressure to demonstrate environmental leadership. However, upfront capital costs and limited time often prevent schools from pursuing renewable solutions. To address these challenges, Solar for Schools provides a community-based funding model that enables schools to install solar panels without upfront costs or financial risk.

At Formby High School, this challenge was met with strong internal support. The Head Teacher at the time championed the project from the outset, helping to drive it forward, and later the School Business Manager played a key role in managing the delivery of the project. Project partners note that their leadership was vital in navigating the complexities involved. Thanks to the determination and support from Solar for Schools, Formby High School became one of over 280 schools across the UK to install solar PV under this model.

How the business model works

Solar for Schools helps schools install solar panels. Focused exclusively on educational settings, the organisation manages every step of the process, from feasibility and funding to installation and education, while placing student engagement and sustainability learning at the heart of each project.

Solar for Schools operates a Community Benefit Society (CBS), a cooperative-style structure where individuals invest in renewable energy for schools. Investors receive modest returns, and the remaining funds are reinvested in solar for schools and educational activities – i.e. investors contribute between £50 and tens of thousands through bonds, receiving a 5.5% return over five-year cycles. Where schools have limited funds, the CBS can help fund the solar panels, which it then owns and maintains for the school.

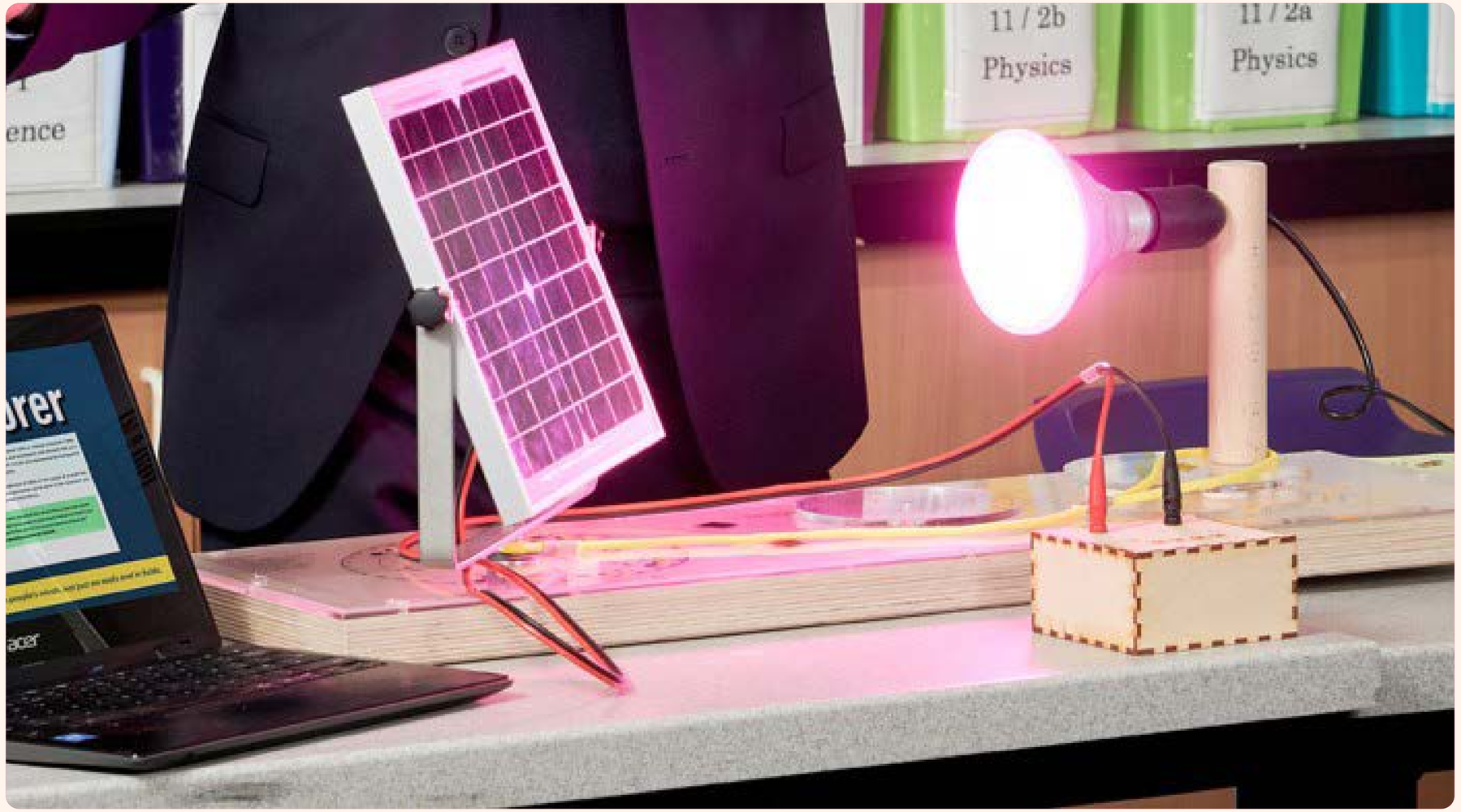
Schools provide the roof space and usually sign a 25-year Power Purchase Agreement (PPA), under which one agrees to buy electricity at a pre-agreed rate, often lower than grid electricity prices. The income collected by the CBS covers maintenance, management, investor returns and repayment of initial investment over time. After 25 years, ownership of the panels transfers to the school at no cost. Schools can also choose to buy the solar panels outright at any point during the agreement.

To increase accessibility, especially for smaller or high-deprivation schools where the business case may be tighter, Solar for Schools combines CBS funding with regional grants and backing from partners. In some cases, Triodos Bank loans are also used to mitigate risk and support scaling-up projects. While local share offers can be effective in some areas, Solar for Schools chose to raise investment nationally to ensure that schools in all areas of the UK, including those where local fundraising may be more difficult, can still benefit.

More than just panels, education at the core

From initial design to ongoing monitoring, Formby High School's solar project offered learning opportunities at every stage. Before installation, this included using Paneliser (Solar for Schools' in-house software) to explore what a solar system could look like on their roof, giving students a chance to engage with data, design and carbon savings. During installation, students had the opportunity to meet and learn from engineers, specialist workers and technical teams working onsite. This creates what the organisation calls a 'walking green careers fair', a chance for students to see firsthand the range of roles and skills involved in delivering a renewable energy project. The learning continues beyond the build, with assemblies, workshops and access to live data dashboards that feed directly into the curriculum.

The project also attracted external attention, including a visit from local MP Bill Esterson, who led a student Q&A session about the solar installation and broader climate issues. This provided students with a direct channel to discuss their concerns and ideas with an elected representative.



Technical challenges

Formby High School's large site and complex installation brought a few technical and logistical hurdles. One notable issue was poor cellular signal in parts of the school, which affected communication routers that monitor the solar system's performance.

To resolve this, upgraded routers and high-gain antennas were installed to ensure reliable data transmission and system monitoring. Additionally, the installation had to be split into two phases due to recent re-roofing work on one of the buildings, which required a one-year defect period before any solar equipment could be installed. To avoid additional delivery costs, the school took an innovative approach by storing the extra panels and equipment onsite. Solar for Schools supported the school throughout this process, helping to manage timelines, logistics and technical adjustments as the project evolved.

How Solar for Schools Works: Step-by-Step

1. Find a project champion
   - A staff member, governor, parent or student who drives the project and helps with approvals, ideally with some decision making influence.
2. Remote roof assessment
   - Schools share priorities, one year of energy use and current electricity rates (on their electricity bill). Solar for Schools then performs a free desktop review to estimate solar potential and savings.
3. Funding options tailored for each project
   - Solar for Schools explores grants, donations, community funding or outright purchase to best match your school's goals and budget.
4. Detailed design & planning
   - Solar for Schools uses advanced tools and surveys to optimise the system and manages all grid, planning and structural approvals.
5. Build management & installation
   - Solar for Schools handles equipment procurement, installer coordination and scheduling to minimise disruption, managing the project from delivery to completion.
6. Ongoing Asset Management & quality assurance
   - Before switch-on, Solar for Schools inspects and tests the system. They also provide remote monitoring, annual inspections, repairs and manage feed-in tariff and export income.
7. Education and engagement
   - Schools receive curriculum-linked educational materials and access to an app using live solar data to engage students with sustainability lessons.

Timeline: Projects typically take 4 months to 2 years, depending on permissions, ownership and other factors.

For more information, visit the Energy Local website.

Key advice from Solar for Schools

One of the key lessons from Solar for Schools is the importance of involving the entire school community from the outset. Engaging students, particularly through eco-committees or sustainability councils, creates a powerful driving force behind the project. Their enthusiasm and involvement not only energised the initiative but also helped embed sustainability deeply into the school culture.

Equally important is identifying both a project champion within the school and securing support from the superior landlord or local council, where relevant. The project champion can be a senior leader, governor, staff member or even a parent or student, but usually holds sufficient influence and passion to navigate approvals and maintain momentum. Their commitment can be the difference between a stalled idea and a successful solar installation. As long as there is at least one determined advocate inside the school, and the necessary external endorsement is in place, Solar for Schools has found that projects can usually be brought to life.

Glossary

Name	Definition
Community benefit society (Bencom)	A legal structure designed for social enterprises that exist to benefit the wider community. The organisations can raise money through community share offers and pay dividends to investors, though these are capped to ensure more profits are for local benefit.
Co-operative	A legal structure owned and controlled by its members. Unlike a community benefit society which serves the wider community, a co-operative primarily benefits its own members.
Investors	People or organisations who provide money to fund the project in exchange for financial returns.
Investor returns	The financial payments made back to people/organisations who invested money in the project, typically as annual percentages.
kW (Kilowatt)	Measures how much electricity something uses or produces at any moment, like a speedometer shows how fast you are driving. A kettle uses about 3kW when running.
kWh/GWh	Measures energy use over time, similar to how kilograms measure weight. A **kWh (kilowatt-hour)** is what you see on your home electricity bill. If you run a 3kW kettle for 20 minutes, it would use 1kWh. A **GWh (gigawatt-hour)** is much larger (one million kWh), or enough to power over 300 homes for a whole year.
Power Purchase Agreement	A contract that sets the price and terms for selling electricity generated by the project to buyers/consumers. In this case, the buyer/consumer is the school.

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