



## “Power to the pupils”

# Solar PV for schools – The benefits

Every school has the potential to generate its own renewable energy. As most schools have a large roof, solar PV (electricity) is generally the stand out choice. There are, however, alternatives, such as wind turbines, or for heat generation, biomass boilers or air/ground source heat pumps.

The main benefits of going solar are:

1. **Reduced electricity bills:** schools can make significant savings on their electricity bills, depending on the size of the Solar PV installation, allowing them spend money on educational and recreational programmes, not on energy. Solar panels can generate electricity for 25 years or more so the cost savings will go on for some time and could be very substantial.
2. **Revenue generation:** solar PV will generate a steady income stream for schools over a 20 year period. Most schools are able to accommodate a 25kWp solar PV system. This could generate an annual income of £3,435 at current tariff rates – see Ofgem FIT website for up to date tariffs. Most PV systems achieve a full payback between 10 - 12 years and will generate revenue streams for another 8 - 10 years.
3. **Reducing CO<sub>2</sub> emissions:** combating climate change by significantly reducing the school's greenhouse gas emissions. Using the above example, a medium size system can reasonably expect to mitigate several tonnes of greenhouse gas emission each and every year, creating significant CO<sub>2</sub> savings over the lifespan of a system.
4. **Education and engagement:** being able to communicate to the pupils the benefits of sustainability through a working example of renewable technology in their own school will provide more direct engagement, particularly in the subjects of geography, science, design and technology and IT. This can also help to inspire the wider community to take action to address climate change.

Taking these benefits into consideration, the business, moral and educational case for installing solar PV in schools is very compelling.

The Departments for Education and Energy and Climate Change will continue to work to encourage energy savings in schools through solar PV deployment, and this leaflet will be updated as appropriate.

*Right: The Rt Hon Michael Gove MP, Secretary of State for Education and Rt Hon Greg Barker, Minister of State for Energy and Climate Change visit a solar PV installation at Barnes Primary School*



This leaflet has been developed by DECC with the support of FunkyRenewables  
[www.funkyrenewables.co.uk](http://www.funkyrenewables.co.uk)

# Solar PV for schools – Checklist

To ensure you get the best out of Solar PV, we enclose some of the essential factors for schools to consider:

Action	Check
Think about an <b>educational plan</b> aligned to your solar PV installation, to support teaching activities on relevant aspects of the curriculum.	
Obtain at least <b>three separate quotes</b> and <b>verify the credentials</b> of each company.	
Ascertain the terms of the <b>warranty or guarantees</b> provided.	
Ensure that the survey, planning and Distribution Network Operators (DNO) application are carried out by a <b>qualified engineer</b> / renewable technology specialist. They will need to consider a wide range of factors such as the existing roof structure, wiring routes, fuse box and current electricity bills all examined.	
Establish the exact duration of installation and schedule of works. You will need to <b>consider health &amp; safety issues</b> as well as the temporary impact that the works could have on the learning environment.	
Ensure that the installation is carried out by a <b>Microgeneration Certification Scheme (MCS) and Renewable Energy Consumer Code (RECC) certified installer. If it is not, it will not be eligible for support by the Government.</b>	
Consider the provision of installed renewable technology <b>maintenance</b> .	
Discuss the installation of a <b>monitoring system to measure output</b> . This could be placed in a prominent position, to enhance awareness and educational opportunities.	

Provided that all the requirements on this checklist have been adequately met, the school has every reason to expect a trouble-free installation and trouble-free operation. Installing solar PV does not have to be complicated if suitably qualified businesses with a proven track record are brought in to carry out the survey and installation. With these two things in place there is nothing stopping the school and its pupils reaping the benefits of solar PV for many years to come.

## Solar PV for schools – Further Information, Finance & Funding

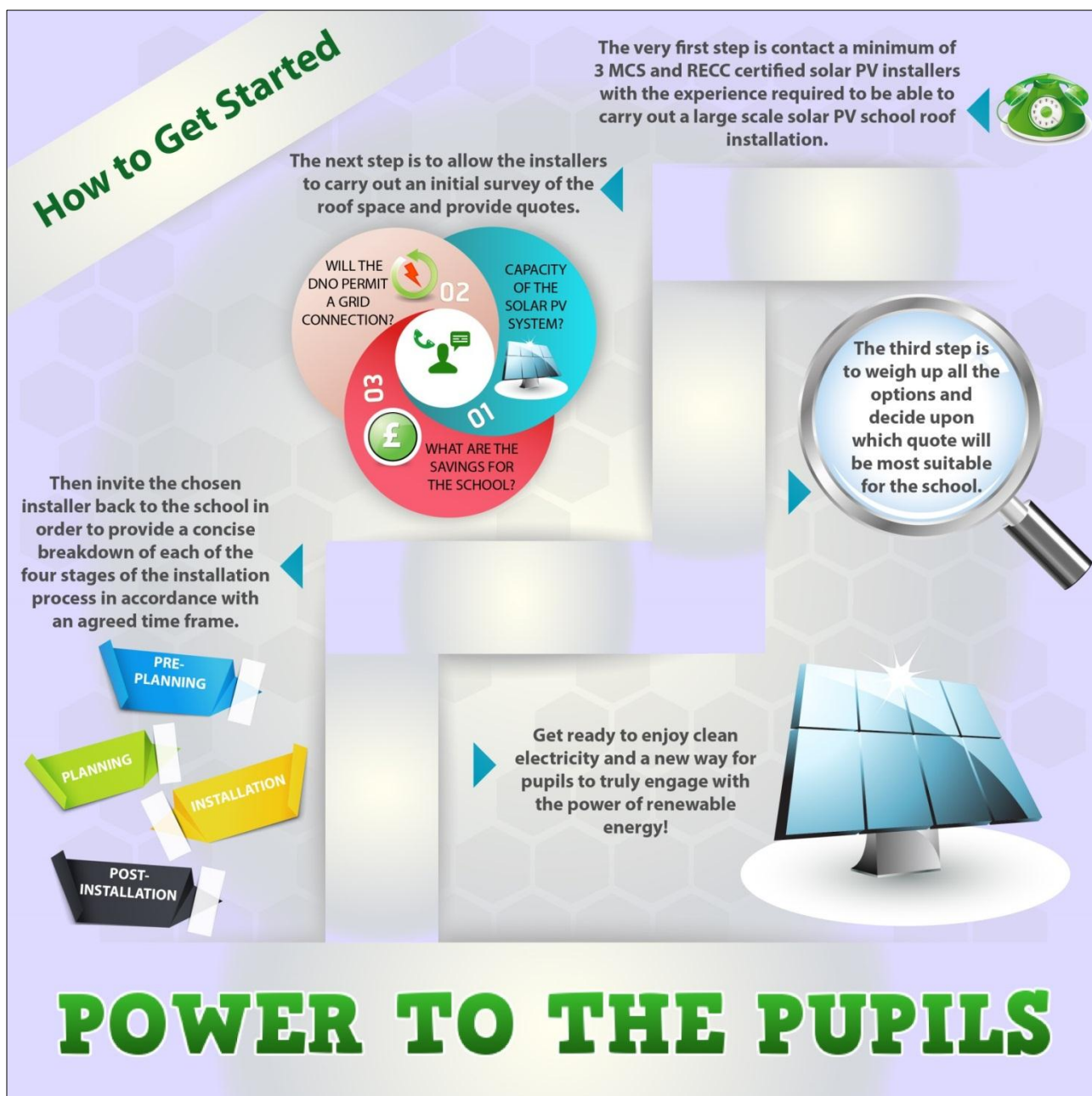
If a school is considering borrowing to finance the installation they must first discuss this with their local authority or the Education Funding Agency before proceeding.

Here is a list of some of the currently available funding mechanisms that could help finance a school's renewable energy project. It should, however, be noted that **this list is by no means exhaustive, and does not come with a formal government endorsement:**

- How do I finance my installation?
  - Schools can **self-finance** Solar PV installations outright where possible.
  - **Funding Solutions** that meet Local Authority and EFA requirements can be identified from a range of different finance suppliers.
  - **Funding solutions** are also available where installers fund the cost of deployment and allow the schools to purchase electricity from their solar PV installation at reduced cost.
  - A number of organisations **fund community schemes** (these can incorporate schools and other local stakeholders).
  - **Rated Solar Installer is an online platform that can** help schools to identify best products and good quality local installers, who will also have the Microgeneration Certification Scheme (MCS) qualification. Rated Solar Installer can also offer schools appropriate finance for the solar PV installations ([www.ratedsolarinstaller.com](http://www.ratedsolarinstaller.com)).
  - Solar PV finance can be raised through **Community Share Issues**, this helps to develop new social impact projects, funded by the community (for example, through cooperatives such as Repowering London – <http://www.repowering.org.uk/>).
  - **Crowd funding and more traditional school-based fund raising activities** can help schools to raise the capital they need from within their own community.

- Where can I get useful advice?
  - [Ofgem](https://www.ofgem.gov.uk/environmental-programmes/feed-tariff-fit-scheme/applying-feed-tariff/benefits-communities-and-schools) – advice on communities and schools (<https://www.ofgem.gov.uk/environmental-programmes/feed-tariff-fit-scheme/applying-feed-tariff/benefits-communities-and-schools>).
  - The [Centre for Sustainable Energy](http://www.planlocal.org.uk/pages/renewable-energy/renewable-energy-technologies-1/solar) (<http://www.planlocal.org.uk/pages/renewable-energy/renewable-energy-technologies-1/solar>) and [Which?](http://www.which.co.uk/documents/pdf/solar-pv-checklist-pdf-269629.pdf) (<http://www.which.co.uk/documents/pdf/solar-pv-checklist-pdf-269629.pdf>) have both issued useful advice for domestic consumers, which may also have relevance for schools.
- How will government and others support my school?
  - The [Feed-In Tariff](#) allows schools to receive a fixed rate for the electricity generated (called the generation tariff), along with any unused electricity exported back to the grid (called the export tariff), as well as savings on their electricity bill from the generation they use on site.
  - Consider scope for funding from Energy Sector community engagement schemes.

## Solar PV for schools – Getting Started



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