

HOW TO GET SOLAR PV IN THE FOREST OF DEAN



Photo: The Wesley, Cinderford.



Step 1: Get your energy data

Photo: Tufthorn Avenue, Coleford.



Step 1:

Get your energy data

To understand whether generating solar energy is a good option for your group, organisation, or business, you first need to understand your current energy data. Some of the things you may want to consider are:

- What is your current energy use? Start by reviewing your energy bills to understand your electricity consumption.
- Identify what you use and when. What are the peak times that you use energy? Is this usage likely to be at a similar time to when you hope to generate energy?
- If you have a smart meter, you may want to ask your supplier to provide the Half Hourly Meter (HHM) data for the past year in a .csv data file. This is useful to match solar supply with your demand profile.

CSE has a useful [energy survey for community buildings](#) that can help with understanding energy usage.

It can be a good idea to assess your energy data alongside a wider assessment of your carbon footprint. You can get an idea of the carbon you are likely to save using the [Rensmart calculator](#). If you are a business you may also want to consider support to help you with this, such as the fully funded Net Zero support provided by [Gloucestershire Growth Hub](#).

You may also choose to use a contractor to help work out the viability of solar PV. If this is the case, read section 2 for top tips on working with contractors.

We would also like to thank AURORA Forest of Dean for funding the design work for this guide.

Step 2: Understand the potential of your project

Photo: Maix Vending solar.



Step 2:

Understand the potential of your project

You now need to understand how much electricity your project might be able to generate. You will need to consider your roof orientation, size, and roof ownership. The best returns tend to be when electricity is generated and used on-site.

To understand the generating potential of your project you may want to consider:

- **Using a solar prediction tool** to estimate the electricity generation potential. Tools such as [Solar Wizard](#) or [Easy PV](#) can provide quick and independent predictions on the viability of solar PV on single buildings or groups of buildings anywhere in England, Scotland, or Wales. Solar Wizard also provides information for [large-scale PV projects](#).
- **Calculating the potential cost reductions and carbon footprint improvements** from solar power. If you are investing in battery storage, make sure to include this in your calculations.



Photo: Lydney Community Centre.

Consider what to do with the electricity you generate

As you learn more about your energy usage, you will need to consider what to do with the electricity you generate. You have three options, you can:

1. Directly use the electricity you generate. Ideally this would mean that your peak usage is at the same time as peak generation.
2. Invest in a battery to store the energy for when you need it. Don't forget a battery can also be used to charge electric vehicles if relevant.
3. Sell the electricity you generate. Most often this will be back to the grid through a Smart Energy Guarantee (SEG). See section 2 for more information on SEGs. Sometimes it may be possible to sell the electricity you generate it to another business or organisation in the same location or nearby.

If you want to sell the electricity you generate to the grid, you will need a Smart Export Guarantee (SEG) so that you are paid for the electricity you export. [Solar Energy UK](#) has a list of the tariffs offered by different companies and [The Eco Expert](#) has more information on SEGs. Some suppliers will pay higher rates for your electricity if you are a customer with them.

If you are directly using the electricity you generate, you may want to consider investing in a battery or shifting more of your energy consumption to when your panels are generating. This may save you more money than selling your energy back to the grid and then buying what you need.

You may also want to consider installing technologies that help maximize the benefits of your solar panels such as:

- **Solar energy monitors** can track your generation, consumption, and export to help you understand how to make the most of your panels.

- **Smart appliances and timers** can schedule appliances to come on during hours when the solar panels are most likely to be generating.
- **Diverter**s can take unused electricity generated by solar panels and use it to power specific appliances such as immersion heaters for hot water, electric vehicle chargers, or electric heating systems.
- **Heat pump** installation can be used alongside solar and batteries to provide larger reductions in cost and emissions.

If you do not own the building or site that you hope to use, you will also need to put in place a legal agreement and agree access to the site. See step 4 for more information.

Working with a good contractor

You may wish to work with a contractor to help you work out the feasibility of Solar PV. It is important to work with a good contractor on this and to make sure their feasibility is based on good, current information. [MCS](#) has a list of suggested contractors and has set standards that contractors should follow. You may want to consider asking your contractor the following questions:

- Are they using actual data or assumed data for your site? If they are using assumed data, you may want to check that the assumptions seem reasonable.
- Have they checked whether there is grid capacity available for the generation planned?

The Centre for Sustainable Energy provides a [list of suggested questions](#) you may want to consider asking installers.

Step 3: Consider any grid capacity needs

Photo: Leeways Packaging Services Ltd.



Step 3:

Consider any grid capacity needs

Grid capacity is the amount of additional energy that can be added to the existing electricity network in your area without overloading it. If you want to install renewable energy systems, such as solar panels, you'll need to check whether there is enough grid capacity to accommodate your project.

In the Forest of Dean, the local grid is managed by National Grid Electricity Distribution (NGED), who are responsible for local electricity distribution. NGED assesses whether the local grid can accommodate new renewable energy projects like Solar PV.

The amount of grid capacity available differs in different parts of the Forest of Dean. Generally, applications for under 100kW (below 200-400 solar panels) are highly likely to be accepted although it will be dependent on a network assessment and network reinforcement may be required. NGED publishes data on the [low voltage \(LV\) network capacity](#) (you will need to register) so you can take a look if there is capacity in your local area.

NGED provides a step-by-step guide to getting a connection on their [get connected page](#). However, it is important to note that most of the time it will be your MSC-accredited installer who will apply to NGED for your connection.

NGED provides further support on how to apply for grid capacity should you need it, including:

- [Connections Surgeries](#) where you can discuss your plans for a new grid connection with an engineer. It is particularly important to contact NGED in good time to discuss your proposal if you are planning a project that will need significant grid capacity.
- [Community Energy Appointments](#) are also available for community energy groups planning a new connection.

Step 4: Ownership, planning permission, and building regulations

Photo: Forest of Dean District Council, Coleford.



Step 4:

Ownership, planning permission, and building regulations

If you don't own the roof where you want to install solar panels then working out who does is key! You can check whether a building is owned by one or multiple people (freehold or leasehold) on the [land registry website](#). Services such as [Pure Leapfrog](#) can also provide legal, financial and organizational support. See the resources section below for specific organisations that support businesses, schools, community groups, churches, and others with the process of getting solar panels.

For many residential buildings, you do not need planning permission for solar panels if they are not visible from a road. Listed buildings, flats, and properties in a conservation area are much more likely to need planning permission or prior approval from the Forest of Dean District Council. More information on planning permission for solar panels can be found on the [planning portal](#).

It's always best practice to check with the Forest of Dean District Council whether planning permission is needed. The Council provides [information on planning permission](#) and a [paid-for advice service](#) if you are not sure if you need planning permission or not.

You will need to apply for building regulations approval if installing a solar panel on your roof. The strength of the existing roof will need assessment to ensure it can carry the weight of the panel. Forest of Dean District Council provides information on [how to apply for building regulations](#). If a building is getting a new roof this can also be an ideal moment to investigate solar panels or solar tiles.

Step 5: Funding and fundraising

Photo: Forest of Dean District Council, Coleford.



Step 5:

Funding and fundraising

There are two key ways that you can fund solar panels. You can raise the capital yourself to buy the solar panels. This means you benefit from all of the energy you generate, either by using it directly or by selling it back to the grid.

Alternatively, you can work with organisations such as [Big Solar Coop](#) or [Solar for Schools CBS](#) who can help develop and finance your project.

Centre for Sustainable Energy (CSE) provides [funding guidance for community energy projects](#) and information on [funding improvements for community buildings](#). Gloucestershire's VCS alliance also has a monthly [funding bulletin](#) which gives up-to-date information on local funding opportunities.

[Gloucestershire's Growth Hub](#) provides support and advice for businesses on their net zero journey and The Forest Economic Partnership provides support through its [Climate Charter](#).

The Forest of Dean District Council's [finance and funding page](#) provides information about any current funding provided for renewable energy projects in the Forest.

Access further support

The following is a list of useful organisations and resources that may be able to support you or your project:

- **Business:** [Gloucestershire Growth Hub](#) provides free tailored advice to businesses looking to cut their carbon emissions. [Severn Wye](#) offers energy efficiency and renewable energy options for businesses.
- **Community:** [Forest Community Energy](#) works to get community-owned solar panels installed across the Forest of Dean. [Community Energy England](#) provides information on solar for community energy organisations.
- **Local energy co-ops:** Several nearby groups support community groups, businesses and others to organise, install, and finance solar panels on local buildings [Gloucestershire Community Energy Co-op](#) and [Gwent Energy CIC](#).
- **Schools:** [Solar for Schools](#), [Solar for Schools CBS](#) and the [Schools Energy Coop](#) support schools to get solar on their roofs.
- **Commercial buildings:** BRE provide a useful guide to [Solar PV on commercial buildings](#).
- **Operations:** There are a range of organisations who can manage the operation side of community energy, including financing and share offers including [Big Solar Co-op](#), [Energy4All](#), and [Share Energy](#).
- **Forest of Dean Climate Action Partnership:** [The Forest of Dean Climate Action Partnership](#) (FODCAP) brings together people and groups working on climate in the Forest of Dean and can support with sign-posting to other local work.
- **Council:** The Climate Team at the Forest of Dean District Council can be contacted at Climate.Action@fdean.gov.uk. Council funding for renewable energy is shared through their [finance and funding page](#).

- **Energy Info:** [Centre for Sustainable Energy](#) (CSE) are a Bristol-based charity that have supported work on sustainable energy in the Forest of Dean and have a wealth of [resources](#) available.
- **Religious buildings:** Many religions provide information and advice for religious buildings working to install renewable energy, such as [Eco Church](#), [Eco Mosque](#), or [this information](#) from the Church of England.
- **Contractors:** [MCS](#) has a list of approved contractors. CSE provides a [list of suggested questions](#) you may want to consider asking.
- **Grid capacity** National Grid Electricity Distribution offer:
 - [Data on the low voltage network capacity](#), including in the Forest of Dean.
 - [Connections Surgeries](#) to discuss new grid connection with an engineer.
 - [Community Energy Appointments](#) for community energy groups planning a new connection.
 - Step-by-step information on [getting grid connection](#).
- **Planning and building regs:** Forest of Dean District Council:
 - Information on [planning permission](#)
 - Information on [building regulations](#)
- **Solar tools:** Tools like [Solar Wizard](#), [Open Solar](#) and [Solar PV](#) can calculate the potential to generate electricity from rooftop solar panels and help with solar design.
- **Legal & ownership:** [Pure Leapfrog](#) provide support on models of ownership for renewable energy, including financial, legal and back-office support.
- **Large-scale:** Useful information on larger-scale PV projects also available from [Solar Wizard](#).
- **Energy survey:** CSE has a useful [energy survey for community buildings](#) that can be useful for understanding energy usage.
- **Property info:** You can find out whether a property is a freehold or leasehold on the [land registry](#) website.

- **Smart Export Guarantee (SEG):** [Solar Energy UK](#) has a list of the tariffs offered by different companies and [The Eco Expert](#) has more information on Smart Export Guarantee.

About this briefing

This information has been co-developed by the Forest of Dean Climate Action Partnership (FODCAP), Forest Community Energy, Centre for Sustainable Energy, the Forest Economic Partnership (FEP), the Forest of Dean District Council, Forest Voluntary Action Forum (FVAF) and the National Grid Electricity Distribution (NGED) to support community groups, businesses, and organisations interested in Solar PV in the Forest of Dean.

The research for this briefing was compiled in early 2025 and is for information only. Anyone considering installing solar panels should contact a qualified installer and seek independent advice. If you know of additional resources that you would like to see added to this briefing please contact ADD.

We would also like to thank AURORA Forest of Dean for funding the design work for this guide.

If you would like further information or to suggest additions to this guide for the future please email info@fodcap.org

