



SOUTH EAST LONDON COMMUNITY ENERGY

Going Solar with Selce

Frequently Asked Questions

This document is written for the benefits of community sites that would like to work with South East London Community Energy (Selce) in order to benefit from cleaner greener lower-cost solar energy. It attempts to answer many of the questions that sites have before proceeding with solar. Please feel free to share this with your board, volunteers, and managers. However, it's not intended to be a definitive legal document and, in fact, the answer to many questions are "it depends". Every site is different and we tailor each project to meet the needs of sites: this document should provide some useful explanations not as a definitive guide

Who and what is South East London Community Energy?



South East London Community Energy is a community energy enterprise (non-for-profit) set up by a group of local residents in Greenwich and Lewisham. We're here to help individuals, businesses and community organisations to navigate the transition to clean energy, and make sure that no one gets left behind on that journey. We offer a range of impartial advice services, to help people who are struggling with their energy bills, want to invest in greening their property, or are organisations that are looking to become more sustainable.

As well as installing solar power on local community buildings we also run a series of projects to help people avoid fuel poverty, improve the energy efficiency of their homes and support communities in the transition to a low carbon future. We now own and operate solar panels on seven schools, two leisure centres, on church and an hotel. These were financed by raising nearly £510,000 in community shares. We are winners of multiple national awards including the Renewable Energy Associations Community Energy Project of the Year 2019, The Community Energy Social Impact Award 2019 and the Energy Saving Award 2017.

Selce is registered as a Community Benefit Society under the Cooperative and Community Benefit Societies Act 2014 (Society number 32417). Voluntary directors of Selce have collectively contributed thousands of hours to the initiative. Please see our website for further information about us (www.selce.org.uk)

Community-financed solar PV: frequently asked questions

How would we finance the solar installation?

Selce will apply to a Mayoral Fund (which supports community energy groups like Selce) to cover a third of the cost of the solar installation up to £50,000. Selce proposes to raise the remainder of the finance through a community share offer in which local people buy equity (shares) in Selce. We would invite individuals to invest between £250 and £20,000. Selce has been set up and registered as a Community Benefit Society to enable us to raise finance in this way. We offer a class of shares known as 'Withdrawable Shares' that do not change in value but offer a social return on investment instead. Most of our members invest in Selce because they want to see their local community benefit from green energy. However, because this kind of share is not protected by the Financial Ombudsman, we work to offer our investors a modest return to offset any risk (in our current financial model 2% in the first 5 years rising to 3.5% in the later 15 years).



Who will own the Solar PV array?

Selce will own and operate the solar PV array for 20 years. It will be our responsibility to maintain, insure and repair the solar panels and make sure they operate at peak capacity during this period. If, after 20 years, you wish to continue receiving solar electricity, ownership of the solar array will be transferred to you at no cost. Modern solar panels are designed to operate even after 20 years at approximately 82% of their original capacity.

Who will be responsible for maintenance of the Solar PV array?

Selce will cover all operation and maintenance costs and assumes all the risks associated with ownership and operation of the solar array. We will procure a contractor to swiftly respond to any repairs. Selce staff will also monitor the performance of the solar PV array remotely to ensure that it is operating as designed.

Who will insure the solar PV array?

Selce will add any new sites to our existing insurance that indemnities the solar installation against:

- Material damage (including storm, lightning, theft and fire damage);
- Mechanical breakdown (over and beyond any warranty cover);
- Any damage to your property or its contents directly attributable to the installation or operation of the solar PV array.
- Loss of revenue & business interruption (emanating from either material damage or mechanical breakdown of the renewable energy system); and
- Public liability.

We currently hold specialist solar insurance across all our solar sites. We will expect our installer to provide a full parts and labour warranty, supported by deposit insurance and independent warranty insurance to safeguard the continuation of the warranty if the installer ceases to exist.

How much solar electricity would the panels provide?

This depends on the size and orientation of your roof, the amount of shading and how much electricity your site generally uses. Solar generation varies seasonally, normally peaking at the summer solstice. At times you will have more solar electricity than you need, and this surplus will be exported to the national electricity grid. There will also be times when there will not be enough to meet your needs and you will have to use a conventional energy supply instead. We generally size your solar system so that at least 80% of the solar electricity is used by you.

How do you ensure that the solar does not damage our roof?

The solar industry has come up with solutions for installing solar panels on nearly all roof materials. For tiles, for example, they use a lag bolt and flashing. The bolt is attached to the rafters of the roof, tightly securing the solar panels and the racking system. To ensure there is no possibility of leaking, a piece of flashing is placed underneath the shingle. For a standing seam roof (a corrugated metal roof), a U-clamp is attached to the raised seam and the solar panel racking is then attached securely to the clamp. Solar panels can also be installed on flat roofs without any penetrations. These are called ballast mounts. The solar panels and their racking are held in place on the roof using the weight of concrete block.



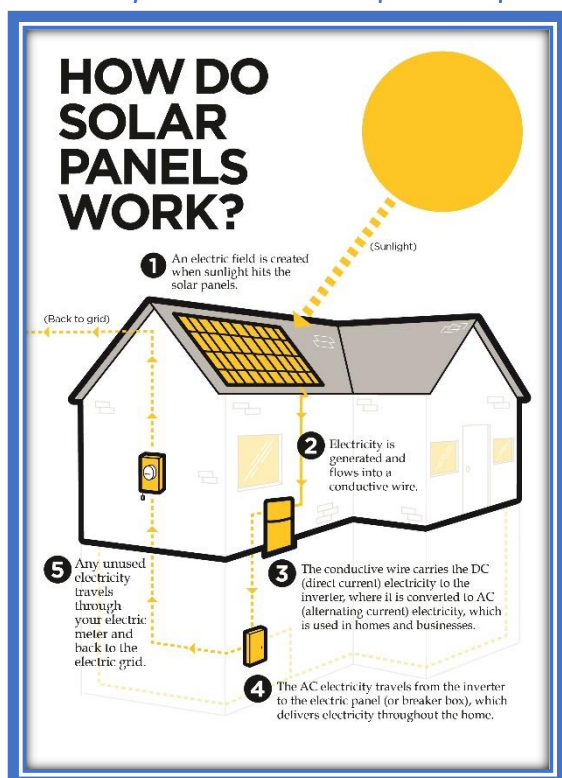
Community-financed solar PV: frequently asked questions

The weight of the blocks is calculated to ensure the panels remain safely on the roof even in extremely high winds. Our structural surveyor will work with our installers to ensure that your roof has the capacity to support the weight of the solar panels and any ballast. He will also advise on the roof condition: we generally do not install on roofs that are not in good condition. In short, we design the system so that the panels remain securely attached to the roof and do not cause any damage to it or the building below it. Should something go wrong, our insurance (and that of our installers) will indemnify you against any damage.

Who installs the solar PV and how long does it take?

We will run a competitive tender process to identify an appropriately accredited company that makes the best offer in terms of cost, quality, and track record. Once the feasibility assessment, legal negotiations and share offer are complete, the installers will work with you to identify a date for installation that works for you. For schools this is usually during the summer break. Depending on the size of the solar array, installation can take between one and three weeks. They will meet with you prior to installation and provide a full RAMS (works risk assessment).

How do you determine the per-kWh price for solar electricity?



SELCE will sell solar electricity to you in much the same way as your regular electricity supplier. We will meter electricity generated and consumed by you and charge you for the for each kilowatt/hour (kWh) of solar electricity that you use. SELCE is a not-for-profit cooperative. The per-kWh charge is the minimum amount required to enable us to cover costs and repay the community share capital investment. But we do not plan to make a profit. We will never offer to install a solar PV system if we cannot offer you a significant saving compared with your current electricity supplier. We generally size the system so that your site uses at least 80% of the electricity generated, and this keeps the price low. Initially we use assumptions about the cost of the installation: it's for this reason that our first provisional proposal is merely a 'best-guess'. We are currently working with several sites across SE London and, broadly speaking, the more sites come on board, the

lower the cost of the solar installation. This is because there are economies of scale with solar installations. If you are interested in the financial modelling, we would be more than happy to talk you through our financial model in an "open-book" fashion.

Why do savings increase?

We have modelled your projected savings by comparing our proposed per-kWh price for solar electricity with your current electricity price. You will notice that savings increase with each successive year. This is because the price of solar electricity will remain the same for 20 years

in real terms (it only increases in line with inflation). The price of commercial electricity tends to increase every year through inflation and commodity price increases. In short, we expect the difference between the price of solar electricity compared with commercial electricity to increase. In modelling we assume a 3.5% increase in the price of commercial electricity. This is very conservative. If we assumed larger annual increases, our estimation of your annual savings would also increase. However, we have chosen to be conservative to avoid exaggerating potential savings.

What happens if we need to remove the solar panels for roofing work?

The answer to this question really depends on what you decide is right for your roof. There are two options

Option 1: Selce pays to remove and replace the solar panels (usually limited to once or twice during the lifetime of the project)

Option 2: you pay to remove and replace the solar panels and you include the cost of removal and replacement within the cost of your roofing works.

In the case of Option 1, we would need to increase the price per kWh of solar electricity somewhat in order to be able to build up a reserve fund to pay for contractors do the removal and replacement work. Most of our sites have chosen Option 2 because it keeps the price of solar electricity low. Even in the case of the most extensive roofing works and a complete reinstall of solar panels, the cost of removal and replacement is extremely unlikely to exceed the savings that you will make. On flat roof systems we usually design-in some redundant space to provide a place to store solar panels whilst roofing works take places. It is rare for there to be a need for roofing repairs on a pitched roof system because the panels protect the tiles from the elements. We usually work to identify a solution that is right for you and your roof during lease negotiations.

Why have you proposed installing on some roofs and not others?

There are two reasons why we would avoid installing on a roof that is in good condition

- It is shaded
- It is a long way from a distribution board

Solar panels are wired together in strings and in series. Any shading on one panel reduces electricity generation in the whole string. Therefore, we generally only install solar on roofs with minimal shading. With DC electricity, there is generally a loss of voltage over distance, therefore we avoid installing on any roof where a long DC cable is used. Our first proposal is always provisional. We are happy to discuss a larger or different design with you. Once solar contractors are engaged, the design is likely to evolve guided by you and your preferences

What legal agreements are needed?

We would ask the either the freeholder or long-term leaseholder to lease your roof to Selce for a period of 20 years. The lease attempts to anticipate all foreseeable circumstances and allocate responsibilities. We have previously negotiated a lease with the Royal Borough of Greenwich for five school sites. We would use this as a basis for our lease for your sites. We will also arrange a Power Purchase Agreement with you. This will set the electricity charge explained above for the 20 years of the solar panels' life and set out terms for invoicing and payment.

What if our site is sold?

Should you or the freeholder wish to sell the building, within the terms of the lease, you could either buy the solar panels from us at a commercial rate or transfer the lease to the new owner.

What is the Community Fund?

Our primary objective is to reduce your energy costs. This is easier in the latter years of the 20-year scheme than in the early years. In the latter years, we unavoidably generate a financial surplus. This will be donated to our 'Fuel Poverty Fund'. Currently in SE London 20 - 25% of households must choose between heating and eating. We are committed to helping households who cannot afford to keep their homes warm in winter. We provide telephone advice, energy advice desks and home visits in partnership with local authorities and housing providers. We fund this through grants as well as donations from current investors. To date Selce has provided one-to-one, tailored energy advice to over 8,000 households enabling them to make significant savings in energy costs.



Any Questions?

Please don't hesitate to contact the team (Giovanna and Deren) if you have any questions. Any questions about the Power Purchase Agreement and legal issues refer to Giovanna. Deren, who is a qualified solar PV installer is best placed to help with technical questions.

Giovanna Speciale CEO giovanna@selce.org.uk 0204 506 6752
Deren Tumkaya Community Solar Projects deren@selce.org.uk

Selce is proud to be part of a national network of community groups powering a greener, fairer future.

