

BIG SOLAR CO-OP

SHARE OFFER 2023

Join us to write the next chapter in community solar:

-  Volunteer powered
-  UK wide
-  Seriously ambitious

About this offer

We're the Big Solar Co-op - a 100% member-owned co-operative with ambitions to develop and own photovoltaic (PV) solar across the UK.

We're training and tooling up volunteers to find suitable solar sites – mainly focusing on rooftop solar on community and commercial buildings. We're already working with sites all across the country.

You can join us as an investor, a volunteer, or both.







Our first share offer opened in June 2022 and raised £840,000 to build our first solar installations. Now we are opening a rolling share offer to continue developing our pipeline of future projects – including both community buildings and businesses.

This offer opens on 14 March 2023 and will run until amended, with shares issued quarterly.

You can invest between £100 and £100,000. Each year we aim to pay you interest on your capital at the target rate of 5% (or 2% above the base rate if higher). If you want to withdraw some or all of your share capital we will make it as easy as possible.

You can apply for shares online at:

<https://apply.shareenergy.coop/big solar>

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The Big Solar Co-operative complies with statutory requirements and those of the Financial Conduct Authority. As the Shares will not be listed, the Society is not obliged to comply with The Combined Code on Corporate Governance. Those investing should first read this document in full and take appropriate financial advice. This offer is not covered by the Financial Ombudsman Service or the Financial Services Compensation Scheme.

Our vision

The Big Solar Co-op has been incubated by Sharenergy Co-operative and grew out of their 10+ years of experience delivering community solar.

The community solar movement has been a great success – hundreds of dedicated volunteers have created over 200 MW of new solar since 2011.

Some local community solar organisations continue to grow and develop. But in many parts of the UK the movement has stalled since the end of Feed-in Tariff subsidies in 2019.

The Big Solar Co-op is jump-starting community solar with a new model which works in places where small solar co-ops may struggle.

UK-wide. Big Solar Co-op is set up to operate anywhere in the UK. If you know a possible solar site, we can work with you to get it built.

Volunteer-led. Our ethos is to trust volunteers and to support them to deliver solar. Our co-op is owned by its members, supported by training, tools, peer mentoring and expert staff where needed.

Ambitious. We aim to build 100 MW of solar PV capacity, mostly on rooftops, by 2030.

Ethical. We are a not-for-profit Society and proudly part of the co-operative movement. We aspire to lead in the sourcing of ethical solar panels and the creation of fair agreements with our clients.

Carbon-first. Our core aim is to combat climate change through reduction of carbon emissions.



Our structure

The Big Solar Co-op is a little bit different to most solar co-operatives in the UK. We are owned by members of the public who either work with us, invest in us, or both.

Volunteer Members

Members of the public with skills and time to contribute can join us by signing a standard agreement and agreeing to do a certain amount of voluntary work. Volunteer Members control 75% of the votes in the Big Solar Co-op.

Investor Members

Supporters can buy shares in the Big Solar Co-op and become Investor Members. Investor Members control 25% of the votes in the Big Solar Co-op. Any Investor Member who wishes to do so can at any time commit to work with the co-operative and become a Volunteer Member. Come and join us, we need your skills!

Groups and nodes

We work together in groups. A group can be based on a shared task (we have a site design group for example) or a geographical area. Where we work together in a geographical area we call this a 'node'. We currently have nodes in Birmingham, Stroud, Shropshire and Derbyshire, hosted by local environmental groups and in some cases staffed by local co-ordinators.

Training and support

We have an active programme of training sessions, where members can learn skills such as solar site finding, initial solar design or negotiating with solar host organisations.

Working together

We collaborate using online tools like Slack, OpenSolar and Sol (our in-house software platform for keeping track of sites, contacts and tasks). We also keep in touch through regular video calls and in-person events.



Staff and governance

Big Solar Co-op has a staff team of six. All the Big Solar Co-op staff are currently employed by Sharenergy, and their services are provided to the Big Solar Co-op at cost.

Noël, Chris and Jon formed the founding Board in early 2022 and registered the Society. At our first AGM Volunteer and Investor Members will be brought onto the board, and the founders will either stand down or put themselves up for re-election by members.



Support

Our work is supported by a range of experts, including:

Sophy Fearnley-Whittingstall

PR & Communications adviser



Sophy has been working in renewable energy for over a decade and is passionate about empowering people, communities and businesses to make a positive difference to the climate emergency. She has helped raise over £30 million in community investment

for renewable energy projects. Sophy is advising us on our branding and media strategy.

Joe Bentley

Operations Manager at Shareenergy



Joe manages Shareenergy's administrative and financial support services to over 35 community energy societies, ensuring that everything runs smoothly behind the scenes. Joe and his team carry out our member and client administration, billing and financial support.

Mark Simmonds

Co-op advisor at Co-op Culture



Mark is an experienced co-operative and community business advisor, with a particular interest in governance and community finance. Based in West Yorkshire, Mark is also the founder of several co-operative and community enterprises including Pennine

Community Power, Heptonstall Community Assets and his local pub The Fox and Goose in Hebden Bridge. Mark advises us on the structure and governance of the Big Solar Co-op.

Sonya Bedford

Solicitor at Spencer West



Having worked for over 18 years in the energy legal sector, Sonya has experience in all aspects of renewable energy projects and across all the key technologies. Sonya has acted for many community energy groups alongside local authorities, developers,

landowners and funders and has been awarded an MBE for her services to Community Energy. Sonya is working with us on leases, power purchase agreements and training.

Where we work

You may have looked around in your town or village and wondered why so few big rooftops have solar. So did we! The Big Solar Co-op is designed to overcome the factors holding back rooftop solar in the UK:

Cost. For many organisations and businesses, an investment in solar on their own roof does not meet their criteria for return on investment – often they are looking for a 3-year payback time or less. We are funded by ‘patient capital’ – our investment comes from members of the public who are driven to reduce carbon emissions and willing to invest their personal money in return for a modest but fair return. And because we are volunteer-led our development costs are low.

Risk. Even large and well-established businesses may need to change their plans in the future. We are building a portfolio of solar installations large enough to be able to smooth out the impact of any one site changing usage.

Trust. Rent-a-roof solar does not always have a good name. By contracting with a not-for-profit organisation with a carbon-first focus, solar host sites reduce their risks considerably.

Our solar model works best for sites which have a tennis court sized available rooftop space (or larger) and where at least 50% of the energy we generate can be used on-site. Examples of suitable sites include:

- ☀ Commercial and industrial sites
- ☀ Education sites
- ☀ Leisure centres
- ☀ Public buildings
- ☀ Care homes

There are hundreds of thousands of potentially suitable buildings across the UK which still do not have solar PV. We calculate that these could contribute at least 5 GW of solar capacity – on a sunny day that would provide around 15% of UK electricity consumption.

Our focus is on large rooftops or relatively small ground-mounted systems, because it is here that we can make the greatest impact. Commercial developers are already building solar fields at large scale, and there is a thriving domestic solar installation sector.

Our pipeline of sites

We have been working hard on finding and assessing solar sites around the UK and we have a significant pipeline of sites under development across the UK including commercial premises and community buildings.

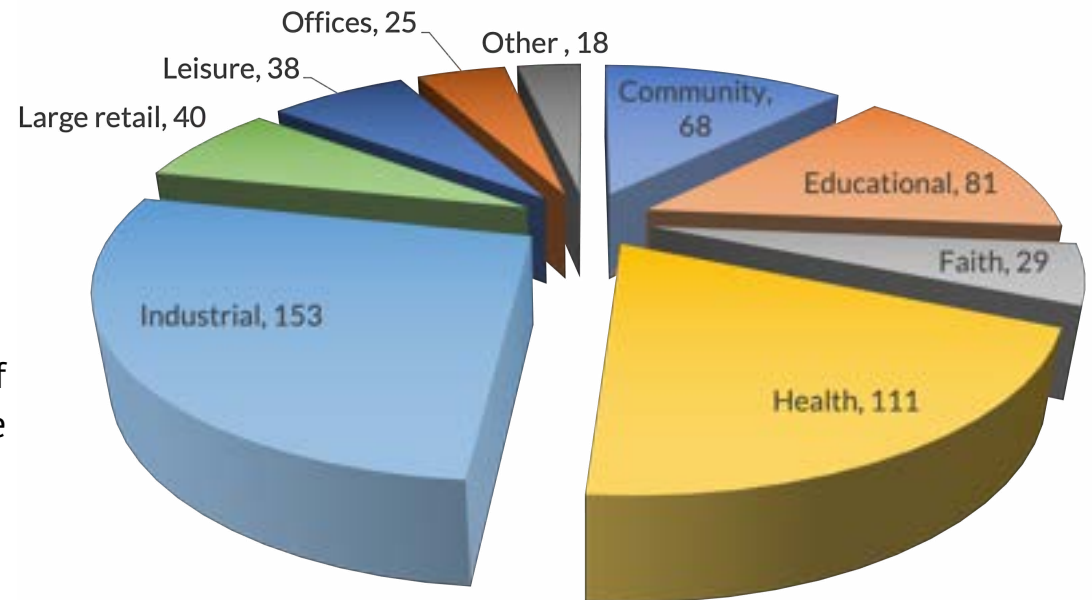
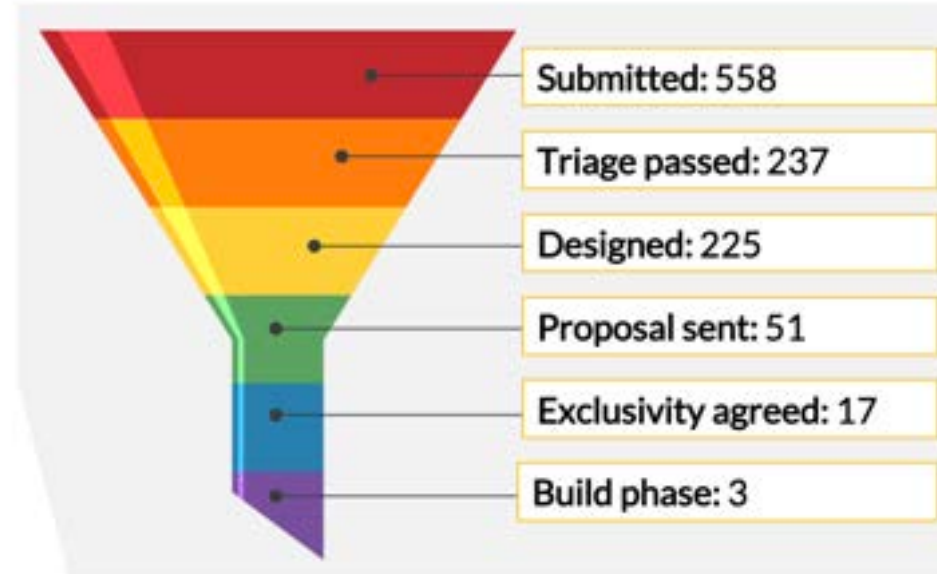
We have a growing pipeline of sites from over the UK. Each site that is submitted to us is triaged against our criteria, and then an initial design is carried out. On the basis of our design work and assessment of the energy user's energy profile we put together a detailed proposal. A snapshot of our 'funnel' for March 2023 is shown here.

Viable sites

We're seeing a variety of potential sites coming forward with both community and commercial buildings represented.

Our primary focus is on rooftop solar. Our model generally works best where buildings have a tennis-court -sized area of suitable rooftop and use significant energy on site – as a rule of thumb their electricity bills are more that £1000/month.

We are also exploring relatively small-scale ground mount solar where viable.



The first installations

Our first round of installations is starting in Spring 2023 with 2 sites in the Midlands. For these sites we are working with Basingstoke Energy Services, an installation co-operative who have a great track record and deep solar knowledge.

It has become increasingly clear over recent years that not all solar panels are equal from an ethical perspective. There is credible evidence that the key raw materials likely to be found in most solar panels are sourced from factories implicated in forced labour, and where the main source of process energy is coal. There is currently no completely reliable way to find solar panels that are ethically sound.

For these sites we have sourced our own solar panels from Meyer Burger. Meyer Burger make panels in Germany using raw materials sourced in part from Norwegian polysilicon producers. Following extensive research, we consider that these are the most ethical panels available in the UK. These are high-cost panels but technically among the most advanced, with high efficiencies and 25yr warranties.

We will continue to work with the highest quality and most ethical suppliers and hope that we can have some influence on the wider solar sector.



Kerry Ingredients, Tenbury Wells
300 kWp
Multi-roof install on food processing plant



Eden Court Medical Practice, Birmingham
30 kWp
Solar array and vehicle charging for doctors surgery

Share offer

This is our second share offer. The funds we raise will be used to finance new solar installations and to provide the working capital we need to get our pipeline of future solar projects running.

Our initial development was funded by grants and in-kind support from a range of organisations (listed on the last page of this document). This generous support has enabled us to recruit staff, recruit an initial team of volunteers and identify our first solar sites.

Our first share offer in 2022 brought us the initial capital we needed to commit to our first installs. Now we are moving to a rolling share offer and completing the transition to a self-sustaining core financial model.

Share capital

Unlike some community share offers you may have seen, we do not have a projected schedule for repayment of share capital. As we are planning many more solar installations, we will aim to keep as much share capital as possible and use it to build more solar. If you wish to withdraw your capital, you can apply to sell the shares back to the Society. We will actively facilitate this - if necessary, by seeking additional share investment to cover withdrawals.

Share interest

We aim to pay interest annually on all share capital we have deployed, at the rate of 5% (or 2% above the base rate if higher). We anticipate that it will take us around 3 years to meet this target, so in the interim we will offer a lower rate of interest if surpluses allow.

If you invest under this share offer your first planned interest payment will be in mid 2025.

By investing in the Big Solar Coop you will be helping to pioneer a new model in community solar. We greatly appreciate your support.

Share interest will be tax free for some shareholders under the Personal Savings Allowance scheme.

You can apply for between 100 and 100,000 £1 shares using our online application form at:

<https://apply.shareenergy.coop/big solar>

Financial projections

The Big Solar Co-op is in its start-up phase. This means overall financial projections can only be indicative – we don't know exactly how things will progress in the future.

We have a target of getting to 100 MW of installed solar. To achieve this by 2030 will require us to double our installs annually from 2025-2030. It's ambitious but we are sure the opportunities are there.

Modelling

We create detailed financial models for individual sites so we know whether they are viable. We use industry-standard software to design solar arrays and we can predict accurately how well solar output will match on-site energy usage. Our figures for the cost of operations are derived from Sharenergy's experience helping to run over 200 community solar sites.

Energy prices

It's a time of extreme volatility in energy prices. While high prices are potentially an opportunity, we are seeing a matching spike in supply chain costs. Our projections are therefore conservative and assume that prices will largely stabilise over the next few years.

Risk

Our standard leases and power purchase agreements are less onerous for solar host sites than is usual in the solar industry. Instead of punitive legal clauses we have incorporated a risk rating into our financial models: from year 5 of every project we treat risk as an expense alongside any other – so we are budgeting for our hosts to change their energy usage, repair their roofs, or even for a proportion of them to go out of business.

Growth

The projections given here assume that we will continue to grow and build more solar year on year over a 12-year period, and that growth will then tail off over time during an operational phase when we concentrate on returning capital to investor members. In practice we hope to continue developing solar for a longer period, but this serves to illustrate our overall financial model.

Our standard lease period is 30 years, and we expect our installations to remain operational for at least that long in most cases. Projections on the next page are given annually to 2030 and then summarised over 5 and 10-year periods to aid legibility and show the whole capital repayment process. This is a simplified model which assumes we raise all capital through shares – in the future we expect secured loans from suitable lenders to form part of the mix.

Financial model

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-35	2036-40	2041-50
SOLAR												
Total Installed MWp at period end	-	1	3	6	14	28	50	77	106	247	293	306
Generation MWh	-	383	1,530	3,822	8,403	17,561	32,816	53,376	77,306	770,491	1,142,881	2,444,864
CO2e saving tonnes	-	77	306	764	1,681	3,512	6,563	10,675	15,461	154,098	228,576	488,973
CAPITAL £000												
Capital invested in period	840	700	1,189	2,990	5,823	11,433	16,980	20,561	21,517	82,229	4,060	-
Capital repaid in period	-	-	-	-	-	-	-	-	-	(16,996)	(60,012)	(91,316)
Total equity at end of period	840	1,540	2,729	5,719	11,542	22,976	39,956	60,517	82,034	147,267	91,316	-
REVENUE £000												
Income	-	74	253	612	1,376	2,948	5,639	9,396	13,940	150,228	248,979	646,759
Operating costs	(3)	(13)	(35)	(81)	(176)	(369)	(667)	(1,052)	(1,488)	(14,470)	(21,221)	(47,811)
Risk adjustment	-	-	-	-	-	(634)	(1,213)	(2,020)	(2,995)	(32,282)	(53,528)	(136,624)
Operating surplus	(3)	61	219	531	1,200	1,945	3,759	6,324	9,456	103,476	174,230	462,325
Core costs												
Core costs	(69)	(123)	(158)	(264)	(313)	(320)	(360)	(405)	(456)	(3,197)	(3,649)	(7,297)
Depreciation	-	-	(28)	(82)	(186)	(386)	(787)	(1,391)	(2,151)	(23,931)	(38,683)	(86,805)
Member interest												
Member interest	-	-	(32)	(77)	(136)	(286)	(577)	(1,149)	(1,998)	(25,646)	(34,099)	(17,175)
Taxation	-	-	-	-	-	-	(251)	(616)	(981)	(12,194)	(26,546)	(98,292)
Surplus	(72)	(62)	(0)	108	565	953	1,784	2,763	3,871	38,507	71,254	252,755
CASHFLOW £000												
Surplus add depn	(72)	(62)	28	190	751	1,339	2,570	4,154	6,022	14,576	32,570	165,949
Invested / Repaid	840	700	1,189	2,990	5,823	11,433	16,980	20,561	21,517	65,234	(55,952)	(91,316)
Capital outlay	-	(836)	(1,617)	(3,118)	(5,998)	(12,040)	(18,136)	(22,778)	(25,187)	(121,736)	(40,672)	(12,716)
Cashflow in period	768	(198)	(400)	62	576	733	1,415	1,938	2,352	5,937	13,313	235,529
Cash	768	570	170	232	809	1,541	2,956	4,893	7,245	13,182	26,495	262,023

Risks

All financial investments carry risk – and community energy projects are no exception. If performance is below expectations on any or all of The Big Solar Co-op's sites and/or higher costs are incurred than projected, you may receive less interest than projected. If something goes wrong on a longer-term basis, then your capital may be at risk.

We have made every effort to minimise risks to our shareholders. This is a summary of key assumptions and risks, along with measures we have taken to minimise them across all our sites:

- ☀️ **Solar resource.** Our projections are based on estimates using standard industry practice. Lower levels of insolation over time would affect performance. *In practice solar output does not vary greatly over time. We have made provision for panel efficiency reducing over time according to solar panel warranties.*
- ☀️ **Site problems.** If any of our solar host sites change their usage, need extensive roof repairs, or go bust, our income will reduce. *We have made provision for all these risks in our*
- finance model by assuming reduced income of approximately 20% from the 5th year of operation.*
- ☀️ **Export electricity price.** If wholesale prices drop, income drops. *Electricity prices have fallen from historic highs but remain high compared to pre-energy crisis levels. We have used the long-term price average for financial modelling.*
- ☀️ **Equipment reliability.** Major outages for maintenance or replacement would reduce income. *The technology we have selected is the best available. We have factored in the costs of monitoring and preventative maintenance and insurance against loss of income. Our solar panels have long warranties which are the best in the solar industry.*
- ☀️ **Operational costs.** Higher costs for service, admin, insurance and rates would reduce performance. *Where possible we have tied in 5-year service contracts. These costs are a relatively small part of the overall model.*
- ☀️ **Development costs.** If our development costs fail to result in a pipeline of new projects then financial performance will suffer. *Our projections are based on achievable assumptions about what is achievable with our resource. We have scaled up staffing and overhead levels in our modelling as we grow.*

Society information

Incorporation

The Big Solar Co-operative Ltd ('the Society') is a co-operative society registered with the Financial Conduct Authority. The Society was incorporated on 13 January 2022. Its financial year-end is 31 March. The Society is governed according to a set of rules registered with the FCA and which can be downloaded from the FCA website <https://mutuals.fca.org.uk/Search/Society/31100>

Members

Any person over the age of 16 can become a Volunteer Member and/or Investor Member. In addition, any incorporated body (company, society or charity) can become an investor member. Volunteer Members must buy one £1 share and sign a volunteer agreement. Investors become Investor Members when buying at least the minimum investor shareholding of £100 by submitting an application for shares. If you wish to become a Volunteer Member, please contact the Society (see contact details on last page of this document)

The Board

The Society has a founding board comprising: Chris Rigby, Noel Lambert and Jon Hallé. Board elections are held at each AGM and all Investor Members and Volunteer Members are eligible and encouraged to stand for election to the board.

Board composition

Our rules specify that the Board must comprise at least 3 directors, and that there must be more Volunteer Members on the board than Investor Members.

Directors' shares

Current Directors hold 1600 shares in total and have indicated that they do not intend to take up further shares from this offer.

Board Practices

Directors are currently unpaid and beyond reimbursement of expenses, there are no other benefits for Directors. Day-to-day operations are managed by the Society, under Board supervision.

Conflicts of Interest

Jon Hallé, Noël Lambert and Chris Rigby are employed by Sharenergy Co-operative, which provides services to the Society.

Administration

Shareenergy provides an on-going administration and management service for the Society for an annual fee which varies with the number of Investor Members, sites and solar generation capacity installed.

Distribution of surplus

All surplus will be re-invested in developing and building new solar generation. Interest will be paid on shares and on any loans or bonds issued, but there is no intention to pay a dividend to members.

Audit

The Society's accounts are subject to annual audit.

Legal proceedings

There have been no governmental, legal or arbitration proceedings relating to the Society and none are pending or threatened which could have a significant effect on the financial position or profitability of the Society.

Future developments

The Society is actively working to develop future solar projects.

Disclosure

None of the directors of the Society have, for at least the past five years, received any convictions (for any fraudulent offence or otherwise), or been involved in any bankruptcies or receiverships, or received any public reprimand or sanction by a statutory or regulatory authority or designated professional body, or been disqualified from any function by any court.

General information sourced from third parties in this Offer Document has been accurately reproduced. As far as the Directors are aware, no facts have been omitted which would render the information inaccurate or misleading.

In making an Application you are making an irrevocable offer to enter into a contract with the Society.

Under Money Laundering Regulations, you may be required to produce evidence of your identity and it is a condition of the Offer that you do so as requested. Non-UK residents must take responsibility for ensuring that there are no laws or regulations in their own country that would prevent them from investing in or receiving income from a UK Society.

Terms & Conditions

The Share Offer	Shares of £1 are offered at par and payable in full on acceptance of an application on the Terms and Conditions of this Offer Document.
Eligibility	The Offer is open to any person (at least 16 years old) or organisation meeting the membership requirements in the Rules.
Application	You can apply online at https://apply.shareenergy.coop/big solar By making an application you are subscribing, on these Terms and Conditions, for the number of shares specified, or such lesser number as may be allocated. An application once made cannot be withdrawn. The price of each share is £1. The minimum number is 100. The maximum holding per member across all share offers is 100,000 shares.
Allocation	Shares will be allocated on a first come first served basis.

Procedures on application receipt	<ul style="list-style-type: none"> • Any cheques/bankers' drafts will be presented on receipt and may be rejected if they do not clear. • Applications may be rejected in whole, or in part, or be scaled down. • Monies in respect of any rejected or scaled-down applications shall be returned no later than one month after the end of each quarter. • No interest is payable on submitted application monies which become returnable. • Incomplete or inaccurate Application Forms may be accepted as if complete and accurate. • Share certificates will be issued to successful applicants on a quarterly basis.
Offer timetable	The Offer will remain open until the Society decides to withdraw it
Minimum raise	There is no minimum raise.

Interest	Interest will be paid on all shares held during a year from the second full elapsed year from share issuance, subject to the financial performance of the Society. The target interest rate is 5% per annum or 2% above the prevailing Bank of England base rate (if higher).
Taxation	Share interest payments are made gross of tax.
Interest payments	Interest will be calculated on an annual basis. Interest is paid annually after the AGM.
Priority of bonds, debt and shares	Any interest payments relating to future loans or bonds will take priority over share interest and capital payments.
Capital repayments	The Society does not intend to make scheduled repayments of capital to shareholders until such time as it no longer requires new capital.
Redeeming shares	Shareholders may apply to withdraw all or part of their shareholding. Withdrawal of shares is at the Board's discretion. The Board will seek additional share capital in order to permit such withdrawals where necessary.

Pricing	Shares are offered at their par value of £1. The underlying asset value of each Share will not rise above £1.
Trading	Shares are not transferable (except in the case of the death or disqualification of a member) and cannot be traded on any market.
Shareholder rights	Shareholders have a right to vote at AGMs or any other formal meeting. Investor Members are collectively limited to 25% of the total vote except where they are also Volunteer Members of the Society.
Provisions on death of shareholder	On death of a shareholder, their personal representative can apply for transfer of the share capital to a named beneficiary, or for withdrawal of the share capital. Return of capital on death of shareholders will be prioritised by the Board over any other return of capital.

Contacting us

The share application form is online at <https://apply.shareenergy.coop/big solar>

For all enquiries email info@big solar.coop or call Shareenergy on **01743 835242**
Our website can be found at www.big solar.coop or find us on social media



The Big Solar Co-operative Ltd is a Co-operative Society Registered with the Financial Conduct Authority (no. **4877**)

Cover image: Potential solar sites where we have carried out triage, solar designs and assessments.

Photo credits: **p3** Google Environmental Insights Explorer, **p4** Aaron Child www.paintedlife.com, **p18** Meyer Burger, other images provided by people and businesses as labelled or taken by Big Solar Co-op.

The Big Solar Co-op has benefitted from very generous support from:



Incubated by Shareenergy



MEYER BURGER
WHITE
Power class (Panel)
Power class (module)