

PACE Manningtree Community Solar Energy Scheme - Frequently Asked Questions September 2023

1. Is all the surveying and installation carried out by the same company across the whole project? If so, how is that contractor chosen?

For the project within the PACE area, all the surveying and installation will be carried out by the same company. More than one company may be involved for the project across Essex depending on the numbers reached. Our installation partner is Simcott Renewables. They have been chosen following our assessment based on price, quality and ability to scale. Independent public information is available, for example on Trust Pilot where Simcott Renewables has an Excellent rating. The company is based in Witham, Essex.

2. If homeowners don't buy the panels outright, what is the agreement with funder and what are the practical ramifications when it comes to selling the house?

The agreement is still being finalised. We expect this to involve a simple fixed weekly charge, paid by direct debit to Essex Community Energy (ECE). This will give the householder use of electricity generated by the solar panels at their home without a further charge. ECE will have the right to export any electricity not used in the home. The charge is expected to be around £2/week and, after taking this charge into account, for a typical household, may be expected to give an electricity bill saving of around 20%. This is based on market expectations of electricity prices in autumn 2024. This is not a guaranteed saving and will depend on factors including electricity usage and electricity prices.

When it comes to selling the house, the choice will be to buy out the funding (the cost of doing so will depend on the time since installation) or a condition of sale that the buyer enters a funding agreement with ECE.

3. Is there a limit to how many panels/batteries can be installed on any one property?

- (i) Pay As You Go (PAYG): ECE will determine the size of the installation following survey. NB Since there are still many details to work through regarding batteries, we may commence just with PV with scope for battery installation later.
- (ii) Customer Purchase (CP): The householder will be presented with options following survey.

4. Can anyone join the scheme at any point?

This will depend on funding details still to be finalised.

5. Does the Essex Community Energy Company produce enough power to supply all its customers or does it still buy in power from other providers?

- (i) PAYG: ECE will only produce the energy from its installations. Customers will buy any more electricity they need from their choice of supplier.
- (ii) CP: ECE will not produce any electricity itself from CP sites
- (iii) ECE is working with a 'peer to peer' partner Urban Chain. Through Urban Chain, energy generators and users are able to buy and sell from/to each other.

6. Is it the Essex Community Energy Company that buys the surplus power from the solar generation?

- (i) PAYG: ECE will have the right to export any electricity not used in the home. ECE will not make any payment to the customer for this electricity. This helps keep the PAYG cost low.
- (ii) CP: The customer may choose who to sell the electricity to. They could choose one of the Smart Export Guarantee options or choose to sell to another energy user through our 'peer to peer' partner Urban Chain.

7. Will households in the scheme need to change their energy provider? Can they be with both the Essex Community Energy Company and their current provider at the same time?

Except as stated below, households on both PAYG and CP options are free to keep their existing energy provider or choose another provider. They will not need to buy as much electricity from their provider once the solar PV is installed. Households who wish to be customers under the 'peer to peer' option would need to change their provider to our 'peer to peer' partner Urban Chain. Such households do not need to have any solar PV on their roof.

8. If households choose the externally funded option, is the maintenance of the panels and batteries the responsibility of the funder?

Yes

9. If households choose the externally funded (PAYG) option and their roof needs maintenance, how does that work in terms of removing panels and reinstalling them?

The householder will be responsible for meeting the costs of removal and timely re-installation of the solar panels by ECE's contractor should the householder require this for roof maintenance or any other purpose. This is a standard feature of funded solutions. It will make sense for any work anticipated to be required on a roof to be undertaken prior to installation.

10. Can households sign up in order to replace older panels?

Yes, provided the customer meets the cost of removing the older panels.

11. Is there an example tariff for the Essex Community Energy Company?

As indicated above, to keep things simple and keep costs down, ECE proposes a fixed weekly charge rather than charging a tariff for electricity consumed. This gives the householder free use of electricity generated by the solar panels at their home. The charge is expected to be around £2-3/week. This may vary by size of system and how much of the electricity generated will be used in the home. After taking this charge into account, a typical household may be expected to get an electricity bill saving of around 20%. This is based on market expectations of electricity prices in autumn 2024. This is not a guaranteed saving and will depend on factors including electricity usage and electricity prices.

12. Are there flexible tariffs with the Essex Community Energy Company that allow for cheaper overnight electricity?

Householders will be free to make their own choice of supplier and tariff to meet the balance of their electricity needs.

13. What considerations should we be making in regards the risks and liabilities for residents and businesses? Will we need to take out additional insurance or inform our Insurance Provider?

- (i) PAYG: ECE will be responsible for insuring the assets which it installs. The customer may wish to inform their Building Insurance Provider. Where the property is subject to a mortgage, ECE will wish to be satisfied that the mortgage provider has consented to the customer entering the agreement with us.
- (ii) CP: The customer should make their own insurance arrangements to meet their requirements.

14. Is it correct that Essex Community Energy Company would be the sole buyer of surplus energy and the sole supplier to all the households that sign up?

No. See answers to questions above.

15. How does the 'peer-to-peer' element of the scheme work? What would households receiving the energy need to do?

- (i) Generators of electricity PAYG. ECE can enter a generator contract with Urban Chain to sell exported electricity on a 'peer to peer' basis; CP: the asset owner can do the same,
- (ii) Consumers: Energy users, particularly those for whom solar PV is not suitable, may enter a consumer contract with Urban Chain. They would need to change their supplier to Urban Chain.

16. What is the benefit for the funder(s)? What do they get out of the scheme?

They get an agreed financial return, but they are a 'social impact' investor so the social and environmental benefits are also important to them.

17. Can households sign up to the scheme to get cheaper panels and then leave the scheme at any point? (i.e. sign up to Essex Community Energy Company at the beginning and then change supplier at a later date?)

As CP customers they are not tied in to ECE beyond the initial purchase.

18. Would households that choose the funded option be tied to Essex Community Energy Company for a fixed period? (30 years?)

Yes, they would be tied in until the funder agreement terminates. It is a long-term agreement to keep the cost to the customer low. The full terms are not yet finalised.

19. Potential entrants to the Scheme are asking “roughly what is the cost of installing solar panels with a max generation of about 4kW?” And “roughly what is the cost of installing a Smart Battery”. We realise we will get a quote at a later stage but we need to know roughly what ball park the costs are to be able to decide whether we can afford to enter the Scheme.

Costs can vary significantly depending on details of specification and of each home. As an illustration, the current price for a straightforward installation of a 4.05 kWp 10 panel solar PV system would be £5,485 with a 5.2 kWh battery added for an extra £2,999. Examples will be given after the initial batch of surveys have been undertaken, when we will also give details of how to get a survey for your home. Solar PV is zero rated for VAT. Batteries are also zero rated provided that they are installed at the same time as a solar PV system. The Government is considering zero-rating standalone battery installation. Green mortgages (or an extension of an existing mortgage) may be a financing option see:

<https://www.greenfinanceinstitute.co.uk/programmes/ceeb/green-mortgages/>

20. Is it correct to say that electricity generated locally can be used locally? Does the Smart Battery record what is being produced locally and what is being consumed locally? If a local household is consuming electricity which has been produced locally, do you pay less per unit for the electricity that has been produced locally than you would pay if you took that electricity from the grid?

‘Peer to peer’ trading can operate at two levels: (i) with the standard Urban Chain market (ii) with a local energy market which we establish. This will require 5GWh/year of generation and consumption using the ‘peer to peer’ the market. That is quite a large volume of energy and it is likely to need ECE to aggregate projects across Essex to reach that level. Once ECE has reached that level, the Urban Chain platform will enable priority to given first to local consumption of what is locally generated (at the Essex level). If there is more local generation, it would be sold in the wider ‘peer to peer’ market. The Urban Chain platform records where electricity using the platform is generated and consumed. Electricity bought from the ‘peer to peer’ platform is cheaper than electricity bought from a standard electricity tariff through the from the grid whether this is at the standard or local energy market level but is likely to give a bigger saving for both generator and consumer at the local energy market level.

21. Our own experience of solar panels is that it reduces our demand for electricity from the grid by about 50%, and reduces our energy bills by about 50% or about £1000 per year. Is that what happens in most households that install solar panels/battery – do they generate about 50% of their electricity and does it reduce their electricity bills by more or less 50%.

It is best not to generalise as there can be big differences depending on the size of install and pattern and scale of consumption.

22. Is it correct to say that, if our community produces a significant amount of its own electricity this reduces the need for backup generators which are normally gas fired. (There was a recent Planning Application for a gas fired back up generator in Lawford to ensure continuity of supply. This application was fiercely contested because local residents did not like the look of it. The application was turned down but the District Network Operator commented that some solution was needed because about 1000 additional houses have been given planning permission and are being built.)

It is correct to say that local flexibility (a mix of generation, storage and smart management) reduces the need for backup generators which are normally gas fired. UKPN and other DNOs are placing increasing emphasis on local flexibility as a means of managing peaks and troughs in the system.

23. National government is giving additional gas and oil licences so that the country will have sufficient gas and oil during the transition from fossil fuels to renewables. If there were a lot of community solar energy schemes, progressively more electricity would be generated locally and used locally – could this be on sufficient scale to assist the transition away from fossil fuels?

Yes it would. Gas and oil are both traded globally so new licences don’t have a specific impact on this country’s energy resilience. In contrast, greater local generation including large scale adoption of community solar energy schemes make a real difference to our energy resilience and greatly help the transition away from fossil fuels.

24. Will we also be able to charge the battery from the grid to make use of a cheaper night-time rate if your tariff includes that? Does the Essex Community Energy company tariff allow for this?

Yes, on either PAYG or CP option, you will be free to choose a 'time of use' tariff from your choice of supplier to meet the balance of your electricity needs. The ECE charge will be a fixed charge enabling use of electricity generated onsite at no further cost.

25. Can the PV panels be on a vertical wall? (asked by a resident of a flat)

Not initially but we are working on this with a partner which has 'thin film' solar PV suitable for vertical mounting. At present, however, there are regulatory restrictions on solar PV prohibiting installation on walls of occupied rooms (as distinct from common areas, stair wells etc). For flats, we are working with a partner which has a system enabling a single solar PV installation on a shared roof to serve individual flats cost-effectively.

26. Can the PV panels be in your garden or field if you are not able to have them on the roof (due to property listing not allowing it for example)? And if so, is there maximum number you can have?

Yes, in principle, subject site survey, distance, practicality etc. There is no fixed maximum. ECE could potentially fund a larger install than you need for your own use and use the excess to meet needs elsewhere in the community.

27. Do you have an import meter and an export meter? Or is this part of the battery's role?

You would need a smart meter which would be able to measure both import and export. There would also be a generation meter measuring how much electricity is generated onsite.

28. What about upgrading as technology advances?

- (i) PAYG: ECE would make a commercial assessment. We are assuming a PV life of over 30 years and a battery life of 15 years at present. If battery installation has been included, a new battery and inverter would be provided at the end of battery life, using the technology available at that time. If only PV has been installed, a new inverter would be installed at the end of the inverter's life.
- (ii) CP: This would be a decision for you. We may provide advice from time to time for example as battery replacement time approaches.

29. Is there a Suffolk equivalent of this scheme? (Question from a Brantham resident)

We are currently working on this.

30. Can we have panels in a Conservation Area or Listed Building?

This will be a decision made by Tendring District Council on a case by case basis. This is what they have said up to now:

Listed Buildings: would need to come to TDC planning team first for planning permission, if it was particularly complex TDC would consult ECC for advice.

Conservation areas: In the first instance residents should book a Duty Planner call back in order to discuss it. This is a free service where planners look at the proposals and advise whether or not permission will be required. Contact the Planning Reception Team on 01255 686161 to arrange a call back.

Broadly speaking solar panels on roofs in Conservation Areas do not require permission, depending on their location / orientation / surroundings. If they are situated to minimise the effect on the character and appearance of the building, and the visual amenity of the area, they are unlikely to require permission. If there are technical reasons for the location of panels not meeting the criteria above, i.e need to be south facing, other roof areas not large enough etc these would need to be presented as part of the application.

31. If I decide to fund my own panels, do I need to wait for the PAYG option to start?

No. If you plan to fund your own panels and batteries, you will need to get a remote survey carried out by Simcott Renewables (this will be offered by PACE), they will then provide a quote and you are free to continue with the installation. PACE and Essex Community Energy will then keep you up to date with how you can share your surplus energy as part of the community scheme.

32. How long will the solar panels and batteries last?

The panels are shown to have 85% efficiency after 30 years.
The batteries are expected to have 80% efficiency after 10-12 years.

33. How disruptive is the wiring?

The Simcott engineers will work with the property owner to determine the best routes for cable runs either internally or externally. The cabling is not extensive but depending on the current system as the property, fuse and service boards may need updating. This will all be discussed during the survey process.

34. Can I add new panels and battery through this scheme if I already have panels?

Yes. Although if you intend to replace existing panels with this scheme, you will need to arrange the removal of the existing panels yourself.

35. Are the panels all black or aluminium edged?

The panels offered as standard are all black. If you wish to have different types on panels, you can discuss this with Simcott Renewables.

36. Can I get funded panels but buy my own battery?

Yes. This will likely lead to an increased monthly charge from ECE (as opposed to the standard £2-£3) as with a battery the amount of electricity you export will be reduced.

Other Questions and Answers will be added and this document will be updated on the PACE Website:

<https://www.pacemanningtree.org.uk/community-energy-scheme>