



# A Vision For Community Energy In London

*#1000ProjectsBy2030*

**March 2023**





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# Executive Summary

London community energy action is growing at pace, supported through the Mayor's London Community Energy Fund (LCEF) and an increasing number of programmes and funds being introduced by individual London boroughs. The sector is also seeing an increase in the number of groups and people who want to get involved to create their own local community energy project to support action in tackling the climate and energy crises.

In 2022 CEL worked with the Greater London Authority (GLA), to access their extensive datasets and mapping tools in relation to building energy consumption and rooftop solar power potential. CEL combined data from the London Solar Opportunity Map, London Heat Map and the London Building Stock Model and:

- Matched up this energy data to community buildings
- Allowed for this data to be explored by administrative areas (borough, constituency, ward) or for London as a whole.

Using this data CEL developed an [innovative map](#) that can support community energy groups identify potential projects in their areas, as well as providing policy makers a tool to visually explore the potential of community energy in London.

# Executive Summary 2

We identified buildings typically of interest to community energy groups to develop projects such as clubs & community centres, educational institutions, leisure centres, Medical sites, museums, art galleries & libraries, Places of Worship and theatres, concert halls & cinemas.

In summary:

- We have identified 20,849 **community buildings** in London which may be of interest to community energy groups
- Up to 85% of these buildings have an EPC rating less than C. All of these building will need to be retrofitted if London is to achieve its Net Zero goal
- 11,508 of these community buildings could host solar PV projects - a capacity of 1,126MW. This level of generation is equivalent to powering about 350,000 homes (around one-tenth of London homes) and save over 200,000 tonnes of carbon annually.

**On the basis of our findings Community Energy London is setting an ambition to have 1,000 community energy projects in place across the city by 2030 - an approximate six fold increase over the current level of projects.**

**This can also be viewed as 30 projects in each of London's 33 boroughs by 2030.**

# Executive Summary 3

So - how to we get to how to get to #1000ProjectsBy2030?

We set out six recommendations to how this ambition can be achieved in London.

- 1. Increasing collaboration between community energy groups and local authorities**
- 2. Continued support from the London Community Energy Fund (LCEF)**
- 3. Recognition of the co-benefits of community energy**
- 4. Unlocking the potential of Londoners to invest in community energy**
- 5. Promoting community energy more widely**
- 6. A new national strategy for Community Energy**



# COMMUNITY ENERGY IN LONDON: WHAT'S GOING ON?

*Living Under One Sun, completion of energy champions training*

# Who are Community Energy London?

**Community Energy London (CEL)** was formed in 2017 and is a network of people and organisations with an interest in supporting the development of community energy projects across the capital.

CEL provides a route for groups to link up and also share experiences, through a regular series of events and workshops and an annual conference. In addition, CEL has hosted monthly meetings on the last Thursday of every month for over five years, focusing on key issues of interest raised by members.

CEL is a volunteer led organisation, with one paid part-time Coordinator in place. We have an active Board of Directors, made up of representatives from member groups, who help shape our priorities and programmes and contribute significantly to helping deliver our work programme.



*SELCE member supporting a local resident*

# Who are CEL's Members?

Community Energy organisations are based around a cooperative model, owned and controlled by their members, with a focus on working with local communities to help combat the climate and energy crisis.

Groups have formed through a number of routes, such as through the Transition Town movement, resident associations, and from local environmental groups to a cycling club.

These groups, which mostly operate on a voluntary basis, develop, fundraise and deliver local energy projects. In many cases, part of the income raised from these projects goes into community funds which are spent on further local initiatives.



# What kind of projects do groups work on?

Many community energy groups' first projects involved the installation of solar PV on rooftops, responding at the time to the Government's Feed in Tariff (FITs) incentive.

Over time, as groups delivered more projects and increased their knowledge around different energy solutions, they have diversified their skills in areas such as energy efficiency advice, building retrofit, LED installations, heat pumps and fuel poverty alleviation projects. Groups continue to innovate and deliver projects which:

- Reduce greenhouse gas emissions
- Re-connect people with how energy is generated and consumed - supporting wider behaviour change
- Tackle fuel poverty, and
- Return benefits to the local economy.

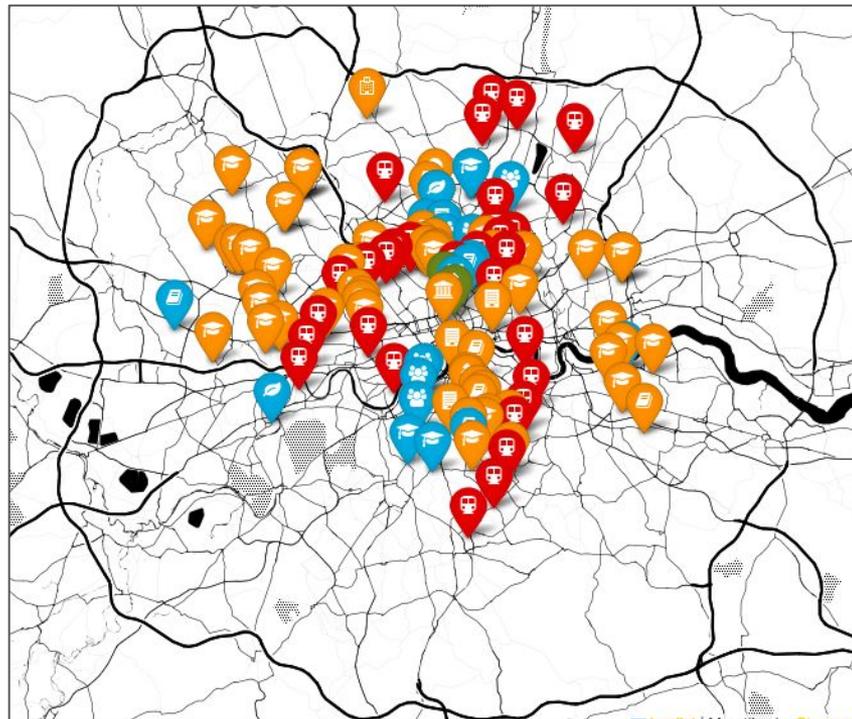
## Community energy groups:

- Provide **technical support** to organisations helping identify carbon reduction solutions
- Host energy **advice and training** workshops for residents
- Secure **funding** through routes not always open to local authorities (e.g National Lottery Climate Action Fund)
- **Raise finance** through issuing community share offers.
- **Develop and Install** renewable and energy efficiency projects
- Maintain **enthusiasm** and interest in their communities on climate and energy issues

# Where are there projects in London?

CEL's project map provides a comprehensive list of (nearly!) all our members' community energy projects. There are approximately 150 projects in total across the city including 70 solar PV rooftop installations.

London community energy action is growing at pace, supported through the Mayor's London Community Energy Fund (LCEF) and an increasing number of programmes and funds being introduced by individual London boroughs. The sector is also seeing an increase in the number of groups and people who want to get involved to create their own local community energy project to support action in tackling the climate and energy crises.



# What are some example projects?

## **SE24/SELCE**

In 2022, SE24 worked in partnership with SELCE and installed over 300 PV panels and 1,890 LEDs in two schools in south London. The projects have annual savings of 52 tonnes CO<sub>2</sub> and will save the sites an estimated lifetimes savings of £230,000. Funding was secured through a £70,000 LCEF grant and £240,000 raised through a community share offer.

## **Brent Pure Energy (BPE)**

BPE installed 659 solar panels with a capacity of 300kWp on the roof of Capital City Academy in Brent. This will save the school over £10,000 pa and has an annual carbon savings of 70 tonnes. The project was funded through a community share offer which raised £195,00 and an LCEF grant of £35,000. Take a look at our new [video](#) of this project.

## **Ealing Transition/Schools Energy Coop**

Ealing Transition worked in collaboration with Ealing Council and The Schools' Energy Coop to install solar panels on the roofs of primary schools in Ealing. By 2020, 14 schools and children's centres had a generating capacity of 398kWp. This project was funded by LCEF grants and a community share offer.

## **Power Up North London (PUNL)**

PUNL worked with Elizabeth House Community Centre in Highbury to install PV panels, replace all lighting with LEDs and deliver energy efficiency workshops. By 2020 the site saw a 40% drop in electricity usage. The costs savings allowed them to open two new weekly services for older people and families. The project was funded by the Islington Community Energy Fund, LCEF and UKPN Power Partners.

# Does the Mayor support community energy?

CEL has worked with the Greater London Authority (GLA) since 2016 setting out the strong alignment between community energy and the Mayor's goals of creating a cleaner, fairer and more affordable energy system for Londoners.

Following the premature closure of the Government's [Urban Community Energy Fund \(UCEF\)](#) in 2016, CEL proposed that the Mayor create a replacement scheme for London. **The London Community Energy Fund (LCEF) was launched in November 2017** with the fund initially providing feasibility grants for solar PV projects (tying in with the Mayor's [Solar Action Plan](#)). A total of six rounds of LCEF have been announced to date, supporting 139 community energy projects, across 27 boroughs. LCEF has helped lead to the installation of over 2.3 MW of solar PV and has expanded to supporting a wider range of technologies, from the installation of low carbon heating systems, to insulation projects to EV chargers at community sites. **A sixth round of LCEF closed in January 2023 and an announcement of schemes to be supported is anticipated in April 2023.**

**Importantly LCEF has help accelerate the delivery of projects by existing groups - as national Government policies for community energy have closed down - and helped bring forward new groups, often nurtured by more established groups, and provided opportunities for new green skills and experience whilst supporting local jobs.**

# What has LCEF supported?

Full details of LCEF and all projects supported to date can be seen on the GLA's [website](#), but in summary the six phases of the Mayor's London Community Energy Fund (LCEF) announced to date are summarised below:

**LCEF Phase 1:** 2017-2018: 11 projects received £130,000

**LCEF Phase 2:** 2018-2019: 18 projects received £182,000

**LCEF Phase 3:** 2019-2020: 17 projects received £188,000

**LCEF Phase 4:** 2020-2021: 38 projects received £539,000

**LCEF Phase 5:** 2021-2022: 40 projects received £700,500

**LCEF Phase 6:** Launched in December 2022 and successful projects to be announced Spring 2023



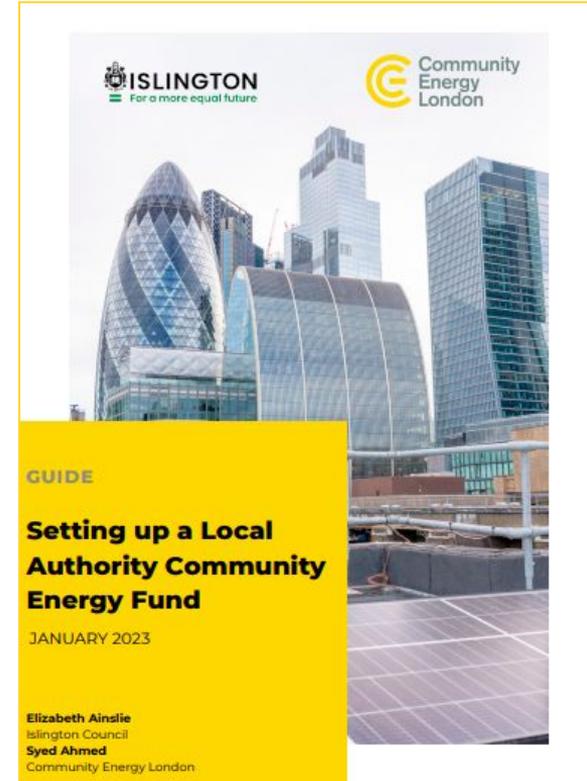
*Lambeth Community Solar*

# Are Councils supporting Community Energy?

Virtually all of London's councils have declared a climate emergency with 27 boroughs and the City of London publishing climate action plans (CAPs), and a further 5 boroughs have CAPs in development (see London Councils [website](#) for further info).

In 2021 CEL undertook [analysis](#) of all London CAPs in place at that time, to examine the extent that community climate action was promoted and supported in these plans. Whilst many plans highlighted the key role that communities will need to play to help achieve local Net Zero goals, and specific programmes were in place to encourage residents to adopt low carbon lifestyles - from encouraging public transport, cycling and walking, to recycling, energy efficiency retrofit and tree planting - only four councils at that time directly supported communities to develop their own energy and carbon-reduction projects.

In 2021, working with LB Islington, **CEL produced a guide to help advise council officers on how to set up a local community energy fund.** We are pleased to see considerable progress in this area over the past two years - and revised our [guidance](#) in January 2023.



# Which Councils have set up Community Energy Funds?

To date seven London boroughs have set up dedicated community energy funds.

 <p><b>ISLINGTON</b> For a more equal future</p>	<p>Islington closed the 6th round of the Islington CEF in January 2023. To date almost 50 projects have been supported.</p>
 <p>London Borough of Hounslow</p>	<p>The Hounslow £100,000 CEF launched in 2022. Six projects have been supported so far.</p>
 <p><b>Haringey</b> LONDON</p>	<p>The Haringey Community Carbon Fund is a 4 year programme with £300,000 available. The first round supported 6 local projects and the second round has just closed.</p>
 <p><b>Hackney</b></p>	<p>Hackney's Light &amp; Power CEF launched in November 2022 with £300,000 available. Successful projects will be announced shortly.</p>
 <p>Lewisham</p>	<p>Lewisham's CEF opened in 2019. In the first year £90,000 was awarded to 11 groups.</p>
 <p>Southwark Council southwark.gov.uk</p>	<p>In July 2022, Southwark announced a £400,000 CEF which is anticipated to launch shortly.</p>
 <p><b>Camden</b></p>	<p>The Camden Climate Fund allows community energy groups to apply for grants up to £25,000. The fund is currently open.</p>

# Where does the money for these CEF come from?



[GLA Carbon Offset Funds Report 2021](#)

Councils typically support Community Energy Funds through Carbon Offset payments. This money is paid by developers to councils if they fail to meet the required carbon standards of new developments. The GLA's annual survey of funds collected by councils states that *“Since 2016 the Mayor’s carbon offsetting policy has realised £145m across London to support activities that tackle the climate emergency. Of this £145m, £55m has been collected or secured.”* Other routes used include funds secured through the Community Infrastructure Levy (CIL).

In addition to the seven boroughs who have established specific community energy funds, community climate projects have also been supported by the following planning authorities:

- [Tower Hamlets Carbon Reduction Community Grants Programme](#)
- [City of London Community Infrastructure Levy Neighbourhood Fund](#)
- [Westminster City Council’s carbon offset fund](#)
- [The London Legacy Development Corporation \(LLDC\) carbon offset fund](#)

# How else can councils work with CE groups?

Apart from project funding, councils can support local community energy action by:

- Identifying and providing sites where community energy groups can develop projects - one of the biggest challenges for groups
- Promote projects to residents - especially when a community share offer is open (such as [Camden](#) did with Power Up North London (PUNL) in January 2023)
- Partnering with groups to secure Government retrofit funding, or employing them to help deliver projects
- Purchase electricity from community solar projects through long term Power Purchase Agreements (PPAs)



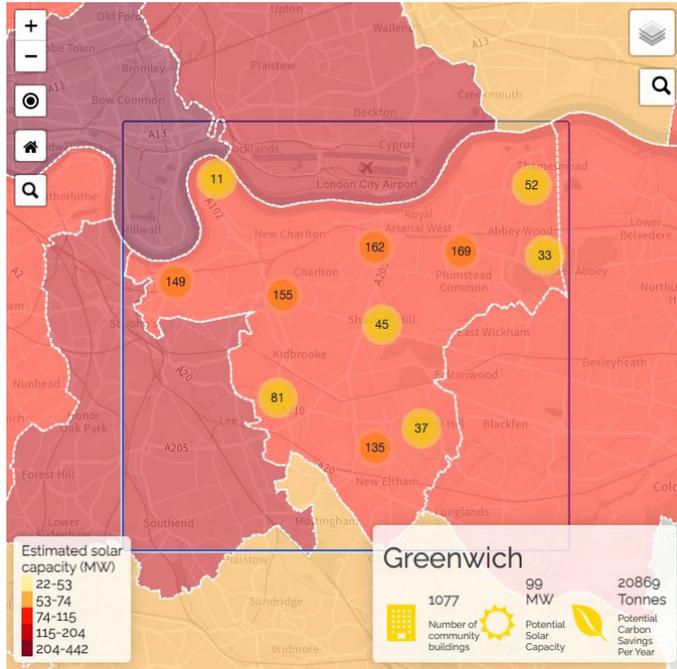
*Hackney Mayor Philip Glanville and Stoke Newington School Headteacher Zehra Jaffer at the launch of [Stokey Energy](#) solar PV project.*



# WHAT IS THE POTENTIAL FOR COMMUNITY ENERGY IN LONDON?

*CREW, Devas Club, Battersea*

# How did you work out how much CE potential there is in London?



[CEL Community Energy Potential Map](#)

In 2022 CEL worked with the Greater London Authority (GLA), to access their extensive datasets and mapping tools in relation to building energy consumption and rooftop solar power potential. CEL combined data from the [London Solar Opportunity Map](#), [London Heat Map](#) and the [London Building Stock Model](#) and:

- Matched up this energy data to community buildings
- Allowed for this data to be explored by administrative areas (borough, constituency, ward) or for London as a whole.

**Using this data CEL developed an innovative map that can support community energy groups identify potential projects in their areas, as well as providing policy makers a tool to visually explore the potential of community energy in London.**

# What do you mean by community buildings?

We identified buildings typically of interest to community energy groups to develop projects from the [Ordnance Survey \(OS\) AddressBase](#) dataset and grouped them into the following categories:

- Clubs & community centres
- Education
- Leisure centres
- Medical
- Museums, art galleries & libraries
- Places of worship
- Theatres, concert halls & cinemas

After identifying the relevant building types, the GLA provided matching energy data related to solar potential<sup>1</sup>, heat demand<sup>2</sup> and energy efficiency<sup>3</sup> of these buildings.

Data was supplied from the:

<sup>1</sup>[London Solar Opportunity Map](#)

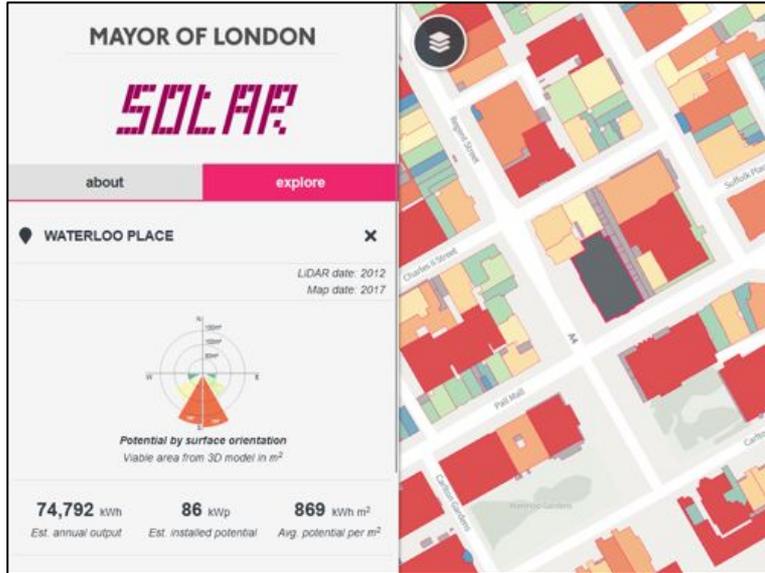
<sup>2</sup>[London Heat Map](#)

<sup>3</sup>[London Building Stock Model](#)



*Power Up North London, Caversham Group  
GP Practice in Camden*

# How did you work out the solar potential?



London Solar Opportunity Map  
Greater London Authority

Our analysis is based on data from the [London Solar Opportunity Map](#). The Mayor developed the LSOM with [UCL's Energy Institute](#) and the [Centre for Advanced Spatial Awareness](#), to help London businesses and other organisations to identify opportunities to install solar panels on their property.

The data for the LSOM uses LiDAR data (using laser technology to measure distances) from the Environment Agency to provide estimates of the amount of electricity which could be generated from solar PV panels installed on rooftops or at ground level.

# So how much community energy potential did you find?

In summary:

- We have identified 20,849 **community buildings** in London which may be of interest to community energy groups (this is a conservative estimate - see Appendix A to explain why)
- In terms of solar installations, the London Solar Opportunity Map suggests that these buildings could host up to 1,210MW capacity of solar PV
- We have decided to filter out the smaller solar projects to consider buildings that could host PV projects above 20kWp only - **which reduces this to 11,508 community buildings with a capacity of 1,126MW**
- **This level of generation is equivalent to powering about 350,000 homes<sup>1</sup> (around one-tenth of London homes) and save over 200,000 tonnes of carbon annually<sup>2</sup>**

<sup>1</sup>Based on the Ofgem estimates of a typical household in Britain using 2,900 kWh of electricity a year.

<sup>2</sup>Based on [government GHG conversion factors 2021](#)



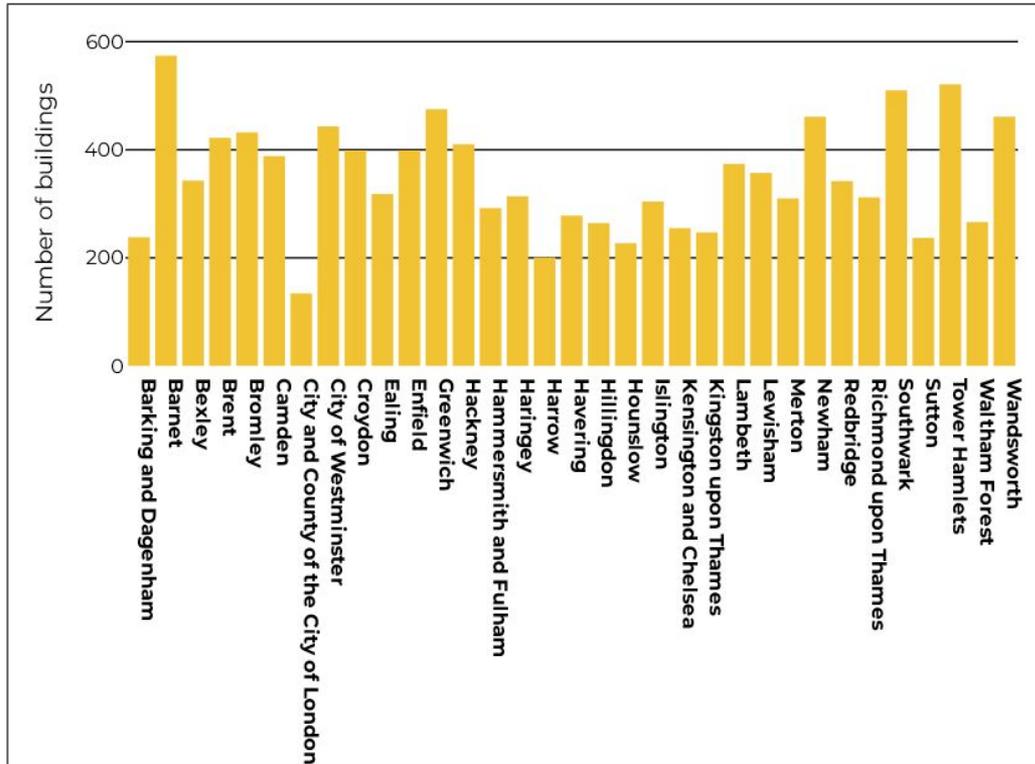
*North Kensington Community Energy,  
Dalgarno Trust Community Centre*

# How many of these community buildings will need to be retrofitted?

EPC Rating (Energy Performance Certificate)	Number of community buildings
A	83
B	918
C	2,113
D	3,890
E	2,166
F	533
G	345
Number of community buildings without available EPC information	10,801

- The simple answer to that is - all of them!
- In terms of **London's 2030 Net Zero target** - virtually all of these buildings will of course still be in place then and will need to reduce their carbon impact. In fact the vast majority are also likely to be still here in 2050 - the national target for reducing emissions.
- Using data from the London Building Stock Model we can get an idea how energy efficient these community buildings are - **see table opposite**.
- The MEES regulations are suggesting that buildings need to be EPC 'C' rated by 2027. **Our data suggests up to 85% of these community buildings currently fall below that level.**

# What is the potential of community energy per borough?

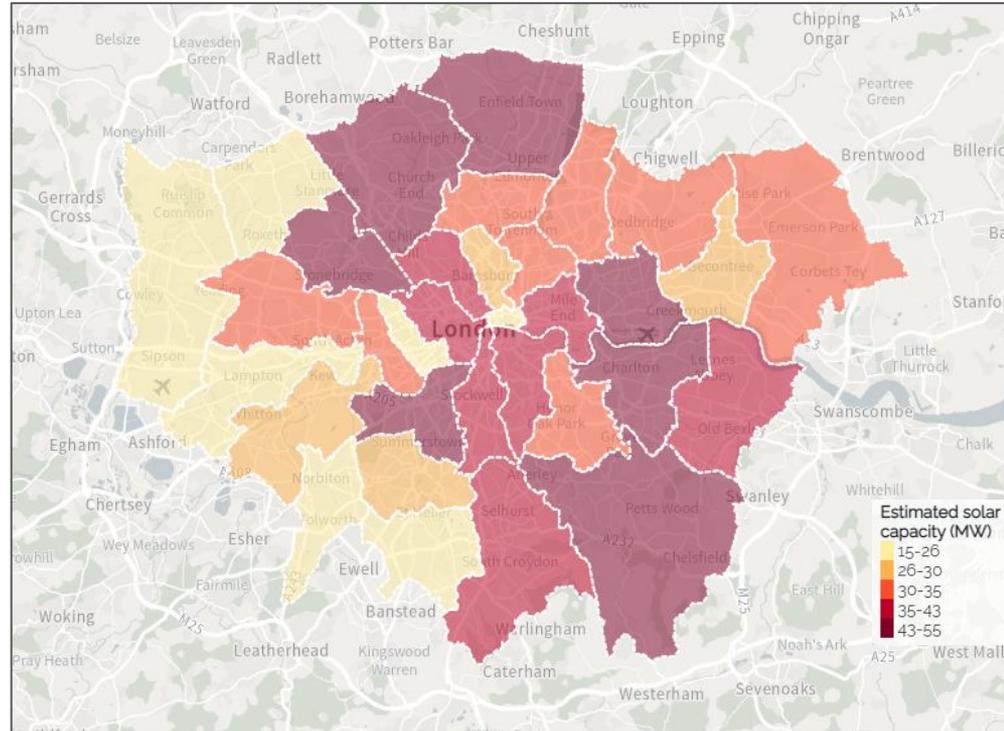


CEL's map clearly shows that most boroughs have several hundred community buildings within their area, all of which will need retrofitting in order to achieve local Net Zero goals. Some of these buildings will fall within the local authorities' estate, and hence are likely to be prioritised in terms of action to decarbonise (and many London councils have been very successful in securing grants under the Government's [Public Sector Decarbonisation Scheme](#)). PSDS funds are however tightening, as is the focus on what these funds can be spent on, hence there exists a good opportunity now for councils to work with community energy groups on retrofitting these and other community buildings in their area.

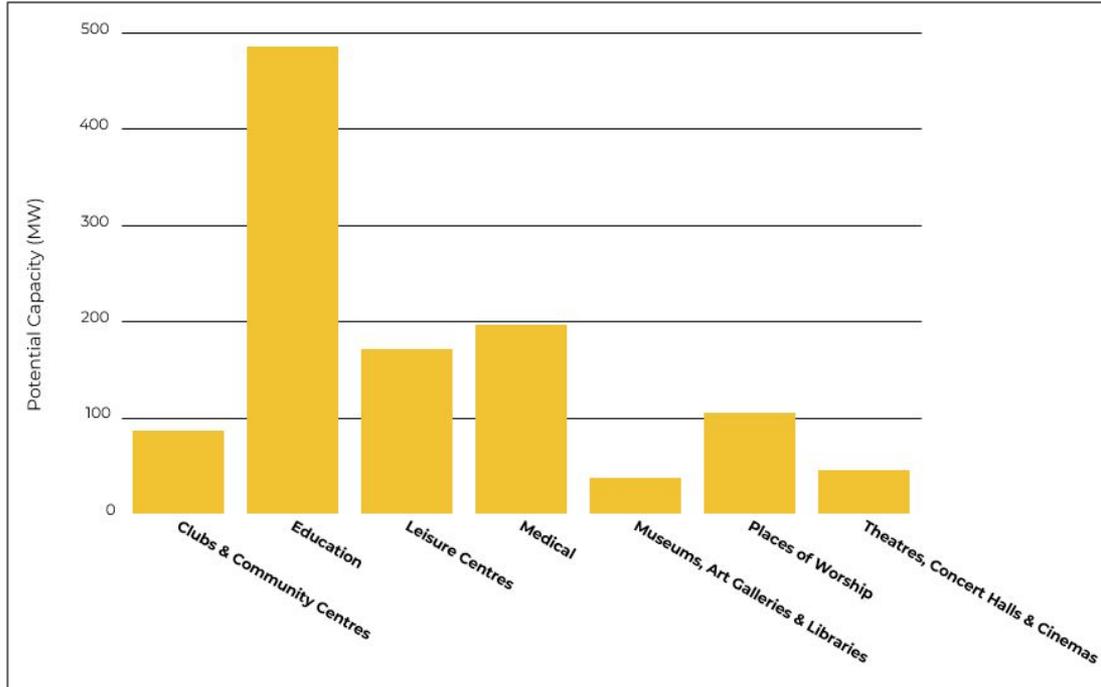
# What is the potential of community solar per borough?

Our analysis helps identify those councils which have the most potential for installing solar on community buildings - and it is quite diverse - with both inner and outer London boroughs presenting good opportunities.

Some of the outer London boroughs - such as Barnet, Enfield and Bromley - where solar installs across all buildings - types remain relatively modest - provide some useful areas for community energy groups to explore, along with a number of other boroughs to the east of the city. None of these councils as yet have specific community energy programmes in place and CEL will look to approach them shortly.



# Which community buildings have the most potential for solar



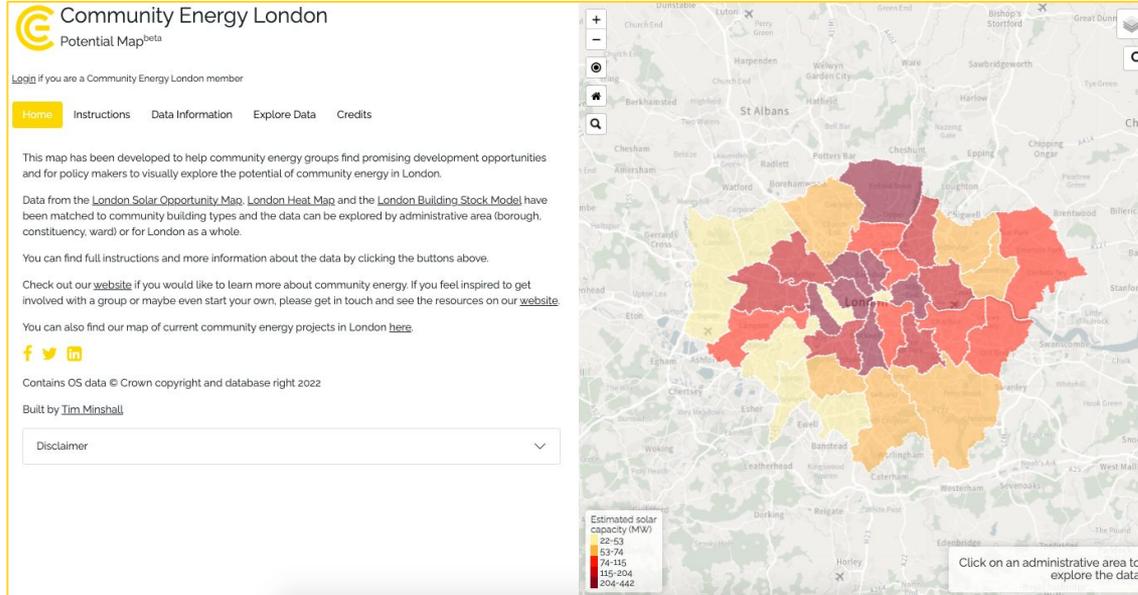
- Perhaps not surprisingly schools and other educational buildings offer the largest potential in terms of hosting solar rooftop projects.
- Community energy groups have already had considerable success in this area with many groups establishing projects on schools across London - most notably Ealing Transition and Schools Energy Coop, who have worked with LB Ealing and have delivered 14 school projects there (see *page 9 for details*).
- Schools remain a priority for many groups, where the installation of PV and LED retrofits can contribute significantly to reducing energy bills, keeping funds focused on education.

# Which wards in London have the highest community energy potential?

CEL's community energy potential map provides the opportunity to filter and identify sites by borough, Parliamentary constituency and also ward. CEL will look to improve the dataset as we gather feedback from our member groups - but in the table opposite is an indication of the Top 30 wards in London with the highest potential in terms of concentration of community buildings. [Full results](#) can be seen here.

Ward	Borough	Number Of Community Buildings
<b>St. James's</b>	City of Westminster	106
<b>Stratford and New Town</b>	Newham	68
<b>Greenwich West</b>	Greenwich	61
<b>West End</b>	City of Westminster	59
<b>Bloomsbury</b>	Camden	57
<b>Woolwich Riverside</b>	Greenwich	56
<b>Holborn and Covent Garden</b>	Camden	51
<b>Whitechapel</b>	Tower Hamlets	49
<b>Roehampton and Putney Heath</b>	Wandsworth	48
<b>Marylebone High Street</b>	City of Westminster	48
<b>Sidcup</b>	Bexley	45
<b>Spitalfields &amp; Banglatown</b>	Tower Hamlets	45
<b>St. Peter's</b>	Tower Hamlets	44
<b>Bethnal Green</b>	Tower Hamlets	43
<b>Fairfield</b>	Croydon	42
<b>Hendon</b>	Barnet	41
<b>Mill Hill</b>	Barnet	41
<b>Childs Hill</b>	Barnet	40
<b>Ilford Town</b>	Redbridge	40
<b>Woolwich Common</b>	Greenwich	40

# What use is the Community Energy Potential Map?



We believe that CEL's innovative Community Energy Potential Map provides for first time:

- A powerful route for community energy groups to engage with building owners and local authorities on opportunities for local decarbonisation projects
- A comprehensive mapping and data tool allowing councils to assess the full potential for community energy in their area
- Data allowing policy makers better understanding of the contribution that community buildings can make to achieving the Net Zero target
- A useful component into [Local Area Energy Planning](#)

# Who will want to use the map?

## A community energy group will be able to:

### Filter data by local area

Find the solar potential, heat demand and energy efficiency ratings of community buildings in their area.

### Find most promising buildings

Sort community buildings by these variables to find the most promising buildings.

### Filter by specific building categories

Explore specific community building categories

### Export data

Export data to a spreadsheet to continue working offline

## A policy maker will be able to:

### Explore potential

See the potential of community energy in specific areas to meet climate targets

### Visualise potential

Visualise the potential of community energy across London to meet climate targets

### Export data

Export data to a spreadsheet for further use such as Local Area Energy Planning



# HOW CAN WE ACHIEVE LONDON'S FULL COMMUNITY ENERGY POTENTIAL?

*EN10ERGY, Fortismere School*

# How can community energy help achieve London's Net Zero goal?

Achieving London's goals of a greener, smarter and more affordable energy system will require some level of retrofit to every building in the city. Policy makers have focused on the challenge of improving the energy efficiency of our homes - which is understandable as UK homes are some of the worst insulated in Europe - but there are hundreds of thousands of other buildings in London across the public, private and community sector which will also need to be retrofitted in our journey to Net Zero. **The current energy crisis and dramatic rise in energy bills we have experienced over the last year has only increased the urgency to decarbonise our buildings through demand reduction and the introduction of renewable energy systems.**

This study looks to explore how London's community energy sector can play its full part in helping achieve these goals by examining:

- The number of community buildings that are present in London - all of which will need to be retrofitted - and are typically the foundation for projects of community energy groups in London
- The opportunities that these building offer to host solar installations

Community Energy London is also studying the potential and challenges for groups to retrofit Air Source Heat Pumps (ASHPs) in community buildings - this report will be published in April 2023.

# What is the size of the prize?

By examining detailed data sets of London's built environment, from the GLA and others, CEL have found in this study that:

- On a conservative basis there are something like **20,000 buildings plus in London which we've classed as 'community buildings'** - which cover areas such as clubs & community centres, educational institutions, leisure centres, medical buildings, museums, art galleries & libraries, places of worship and theatres, concert halls & cinemas.
- Of these community buildings, 11,508 have been identified by the London Solar Opportunity Map of being able to host PV installations of 20kWep capacity and above - **a total of 1,126MW if this were to be fully realised.**
- And with less than 100 of these buildings having the highest EPC rating of 'A' - **all of these 20,000 buildings will need some level of retrofit** - most of them 'deep retrofit'.
- As highlighted at the beginning of this report, community energy is growing fast across the capital, spurred on by close collaboration between community energy groups, the Mayor and an increasing number of local authorities. But our study shows that in terms of the building-types that community energy groups work typically work with - **there remains huge potential for future opportunities for projects** across the city.
- **On this basis of our findings in this report, CEL sets out an ambition for a London-wide programme to achieve at least 1,000 community energy projects across the city by 2030.**

# How to get to #1000ProjectsBy2030?

To get to **#1000ProjectsBy2030** in London, CEL would like to see:

1. **Increasing collaboration between community energy groups and local authorities.** The GLA's latest carbon offset survey stated that *"91 per cent of [councils] reported an increase in the amount [of carbon offset funds] collected or secured for collection since 2020."* CEL would like to work with councils to encourage the introduction of further specific community energy funds, as well as councils identifying sites to host a project, promoting share offers, and exploring further routes to support community climate action in their boroughs.
2. **Continued support from LCEF.** The Mayor stepped in to support London's community energy sector at a critical time when Government prematurely closed down the Urban Community Energy Fund, rapidly reduced FIT rates and halted tax relief opportunities for investors in community energy schemes. We know that LCEF 6 has had a very high number of applications submitted, reflecting the growing interest in community energy - and hope the Mayor will continue to support further rounds of the Fund over the coming years.
3. **Recognition of the co-benefits of community energy.** Policy makers need to work more closely with the community energy sector to better quantify and value the co-benefits of the projects delivered as an input into future action. This could be from supporting local jobs, training, attracting inward investment to supporting behaviour change.

# How to get to #1000ProjectsBy2030?

- 4. Unlocking the potential of Londoners to invest in community energy.** Some initial analysis by CEL of LCEF projects that were installed shows that for every £1 provided through LCEF, groups then went on to raise between 5-7 times this amount in capital funding through community share offers or via other investors. ClientEarth have previously reported that *“almost three quarters of consumers would be interested in joining a community energy scheme if the government made it easier (71%)...”*. CEL members’ community energy share offers regularly over achieve their targets and secure funds faster than anticipated. ***We need policy makers at all levels to recognise and unlock this untapped potential for local green investment - especially in community-led projects.***
- 5. Promoting community energy more widely.** Critical to achieving this goal of 1,000 community energy projects by 2030, an approximate six-fold increase over today’s level, is for London’s politicians to ***encourage more individuals and organisations to find out about community energy and get involved with the sector to help deliver projects at speed and at scale. This could be through hosting sites, providing space for groups, sponsoring or investing in groups/projects and so on.***
- 6. A new national strategy for Community Energy.** Government has no targeted policies in place at the present time to support community energy. A February 2023 [answer](#) to a parliamentary question by Dr Rupa Huq, MP for Ealing Central and Acton, highlights this. There are a number of areas that Government could explore to support community energy, from feasibility and capital funding support, to tax relief routes for investors to allowing fairer pricing for community energy power - as set out in the Local Electricity Bill. A new Strategy is needed to help set these out.

# Acknowledgements:

This production of this report was managed by Syed Ahmed and written by Syed Ahmed and Tim Minshall. The development and production of the CEL Community Energy Potential map was managed by Tim Minshall.

We would like to thank Greg Shreeve, Matt Thomas, Emma Gray and Paul Hodgson at the GLA. We would like in particular to thank Ruxanda Profir, Senior Data Analyst, Environment at the GLA without whose help the map would have not been possible.

The production of this paper was also supported by CEL Coordinator Katherine Linsley.

With thanks to funding from the GLA.

Further information on Community Energy London can be found at:  
[www.communityenergy.london](http://www.communityenergy.london)

# Appendix A: Limitations of the data used

## 1. Unknown solar installations

We have not been able to remove buildings with existing solar installations from this analysis because, unfortunately, there is no complete dataset of this in the UK.

## 2. Age of dataset

- a. The dataset used is based on data dating from 2014-2018. Buildings may have been demolished or constructed in the time since then which may have an impact on individual buildings but also on surrounding buildings as new construction may impact the solar potential of other rooftops due to shadows.
- b. UCL experts confirmed that we can trust the data for a few more years, as only 2% of buildings are replaced annually.

## 3. Building Issues

- a. There may be reasons why a building is not suitable for a solar installation which could not be considered for this analysis. Examples include:
- b. Who owns the building? Are they willing to have solar panels installed?
- c. Is the roof used for other purposes?
- d. Does the roof have structural issues?

## 4. Missing Buildings

- a. Building classifications are not always fully reported by boroughs, which has resulted in missing data that we had to discount from this analysis.

## 5. Solar Overestimate

- a. From conversations with experienced community energy practitioners, we believe data from the LSOM may be overestimating potential solar capacity for some buildings. We will be working with the GLA using this practical experience to improve this invaluable dataset.

