



# Community Energy Newham

CEN Phase 1: Community-owned solar panels on East Ham Library, Beckton Globe and Stratford Library

## Business Plan

*This business plan has been prepared by Repowering London and reviewed by the Community Energy Newham Directors.*

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## Executive Summary

Community Energy Newham (CEN) Ltd is an asset locked Community Benefit Society, with a mission to develop community-owned and democratically led sustainable energy projects in the London Borough of Newham.

We are supported by Repowering London, a social enterprise specialized in co-creating and supporting community energy projects. Repowering London has a successful track record of setting up and supporting over ten energy co-operatives across London.

**For this first phase, 133 kWp of solar energy was installed on the roofs of Beckton Globe and East Ham Library, and an additional 44 kWp is scheduled to be installed in Stratford Library this spring.**

**The total solar installations at the three libraries amount to 177 kWp, for which we are now seeking to raise £120,000 from the local community, bringing the project into community ownership.**

The installation was financed by Repowering Finance, an asset locked Community Benefit Society created to increase the speed and scale at which community-owned solar power can be installed across London, on behalf of CEN. The solar assets are held in trust by Repowering Finance until CEN is able to raise the capital required to purchase the assets, which is the purpose of this share offer.

The electricity generated by the solar panels is sold to Newham Council, who operates the building, through a Power Purchase Agreement at a discounted rate, and any surplus electricity will be sold to the national grid. We will use this income to repay our investors with a return on their investment and create a Community Fund for the benefit of the local community.

In the first year, the solar installations at East Ham Library and Beckton Globe generated £4,470.09 of income. Over its lifetime, the project will save up to 734 tonnes of carbon emissions, is expected to contribute an estimated £25,100 to the Community Fund and will save the libraries approximately £202,335 on electricity bills.

CEN has a number of solar sites in the pipeline, including two other sites which have already installed a total of 183 kWp of solar panels on their roofs through Repowering Finance. CEN's long-term goal is to ensure that 1% of the total energy consumed in Newham is community-owned and renewably generated.

For this first project, we are raising £120,000 to cover the cost of the installation. Financial modelling confirms that this installation is viable. The three sites included in this project are an essential part of Community Energy Newham's long-term strategy.

## About Community Energy Newham

Community Energy Newham (CEN) is the first, and only, community energy co-operative in the London Borough of Newham. CEN was created by a group of residents that met at East Ham Library for monthly volunteer meetings, with the support of Repowering London.

Our mission is to develop community-owned and democratically led sustainable energy projects that empower the local community and reduce carbon emissions, and to build a clean, local and affordable energy future for everyone in Newham.

### Background

At the start of 2022, Repowering London collaborated with two researchers from Kings College London and University College London involved in a research project that explored developing community energy models in low-income and diverse communities. The researchers introduced Repowering London to contacts at the London Borough of Newham and the community groups identified in their research, which led Repowering London to secure funding to support community engagement and feasibility studies to assess potential solar opportunities in the borough.

Throughout the following years, the team at Repowering London engaged with Newham residents, who came together in the summer of 2023 to establish CEN, ensuring its foundation lays in local perspectives and priorities. The team of volunteers and directors has met monthly at different community locations throughout the borough ever since.

In October 2023, two of the surveyed sites – Beckton Globe and East Ham Library – had solar panels installed, and CEN is raising the funds to purchase the assets and bring them to community ownership.

### Legal Structure

Community Energy Newham Ltd is a Community Benefit Society (CBS), registered on the 7th of September 2023 under the Co-operative and Community Benefit Societies Act 2014 (Registered with the Financial Conduct Authority, registration no. 9136).

The purpose of a CBS is to serve the broader interests of the community, in contrast to co-operative societies that serve the interests of their members. As CBS, we can issue community shares, which are non-transferable, withdrawable shares. This allows us to

raise funding at a low cost compared to a commercial loan. It also provides the local community with a socially and environmentally responsible investment opportunity.

We have an asset lock as part of our rules. This means that our assets – our solar panels and our profits – are protected for the benefit of the community. If our Society is wound up (or sold to another entity), and all members' share capital has been refunded, residual assets cannot be distributed to members. In fact, the residuals assets can only be transferred to another asset locked body. The governing rules of the society can be found at [www.repowering.org.uk/community-energy-newham-share-offer](http://www.repowering.org.uk/community-energy-newham-share-offer).

## **Governance**

CEN is run by a board of volunteer Directors, who administrate and manage the CBS with the support of Repowering London. No Director receives remuneration for their role, nor will be involved in decision making where they have a direct interest outside of their role. Co-operatives are democratic organisations controlled by their members, who actively participate in setting their policies and making decisions ([The Community Shares Handbook](#)).

## **Community benefit**

CEN will retain ownership of the solar panels for 20 years and sell energy to the sites at a lower price than grid providers, while making sufficient income to pay a return to investors. This model creates community benefits in several ways:

- **Investor members** benefit from an annual return on investment for the first 16 years, have an equal say in the decisions of the CBS, regardless of shareholding, and get access to events and training opportunities as part of the Repowering London family of co-ops.
- **Community buildings**, such as libraries and schools, benefit from a long-term secure renewable energy supply at a discounted rate. They also have the option, should they decide to accept, to take over ownership of the solar panels at the end of the project.
- **London Borough of Newham** is supported in achieving its net zero goals and Just Transition ambitions.
- **A Community Fund** from any surplus income will support local initiatives.

## Our network

Community Energy Newham is part of the Repowering London Family of co-ops. Repowering London is a not-for-profit community energy development organisation that puts people at the heart of the energy system, acting as a bridge between the energy sector and local communities, prioritising work with diverse communities and working in ways that ensure everyone can participate and benefit from the transition to a low-carbon future.

CEN is also a member of Community Energy London and Community Energy England, which provide CEN the support needed to accomplish its mission and impact.

CEN works closely with Newham Council, which has supported the project since the start. The London Borough of Newham was one of the first boroughs to declare a climate emergency in 2019 and the UK's first to launch a Just Transition Plan. Newham's Climate Action Team is working on a borough-wide strategy to decarbonise the council's full portfolio of buildings and maintained schools and has committed to creating an energy system that is resilient, equitable and not dependent on fossil fuels. This approach includes whole-systems energy planning, facilitating community ownership and place-based approaches to energy.

## Directors

The Board of Directors works closely with the Repowering London team and volunteers. They monitor the co-operative's performance and operation, and determine its mission, vision and strategic direction.

- **Olawale Ajibola** has been a Newham resident for more than 30 years and is committed to tackling the climate change crisis with a focus on finding locally inspired sustainability solutions.
- **Marco Brunone** has been working in the energy industry for the past eight years and is currently working to help Great Britain's energy infrastructure adapt to a net zero, low-carbon future
- **Patricia Calixto Pires** is CEN's Secretary and Repowering London's Co-operative Development Project Manager. Patricia has been involved in the project since the beginning, running community engagement events and activities and supporting the establishment of the Community Benefit Society. She is committed to creating a fair and sustainable energy system and building strong, resilient communities.

- **Ruth Chiat** is a Newham-based Community Engagement Project Manager passionate about working with her Newham neighbours to address the climate emergency and build community together. She started by working at Repowering London as a researcher, engaging residents in a community research project that aimed to make CEN more accessible and attractive to people in Newham's diverse community. This included gaining insights from local people and co-designing a participant journey that shapes how people can get involved and be involved in running and developing the co-op.
- **Zizidi Nluta** has a BSc in Earth Science, has been interested in the climate emergency campaign since 2020, and is willing to support the process of net-zero emissions. This motivated her to build a career in the energy sector.



# Business Model

## The community energy sector

### National context

According to Community Energy England's 2024 *State of the Sector* report, there are 583 community energy organisations in the UK, which account for a total of 398 MW of community-owned renewable electricity capacity.

In 2023, community energy projects generated 617 GWh of low carbon electricity, equivalent to the annual electricity demand of 228,530 UK homes and reducing greenhouse gas emissions by 165,980 tonnes of carbon emissions, a 129% increase since 2017.

### Local context

While there has been little or no support from National Government, the Mayor of London's London Community Energy Fund (LCEF) programme has supported the development of a total 175 projects in London through seven rounds of funding since 2018. CEN is one of them and has received support for the feasibility studies of ten sites. Groups within London are closely linked through Community Energy London, a network of community energy practitioners operating in London. Community Energy London has worked closely with the Greater London Authority (GLA) to support the sector. The London Legacy Development Corporation (LLDC) has also awarded more than £2 million to 16 local community projects, including CEN, in the first bidding round of the 2022 Carbon Offset Fund.

### Market opportunities and challenges

CEN is the only community energy group in Newham, and we developed a strong partnership with Newham Council, which is committed to decarbonising the borough and creating an energy system that is resilient, equitable and not dependent on fossil fuels. This partnership has and will continue to allow us to access a wider number of roofs to install solar panels across the borough. CEN also benefits from Repowering London's support, which has an excellent reputation and experience in raising community shares.

The borough has one of the highest rates of fuel poverty in England and above average rates of poverty, financial isolation, inequality and racial and geographic imbalances. These factors will make fundraising in the borough a challenge. Whilst a strong focus will

be made on promoting investor membership from within the borough, the share offer is open nationwide, which will help overcome this challenge.

### **Our long-term goals**

Our objects are to carry on any business for the benefit of the community by:

*developing and operating community-owned and democratically-led sustainable energy projects, and promoting sustainable practices across the London Borough of Newham.*

Our long-term ambition is to support the transition to a low carbon future that benefits those who live, work and study in Newham. For this, we aim to develop further community-owned solar projects with care for the people at its core, with the support of Repowering London and in collaboration with Newham Council.

In terms of the immediate pipeline, two additional installations have been completed by Repowering Finance on behalf of CEN in the borough:

- Godwin Junior School (70.96 kWp)
- St Stephens Primary School (112.05 kWp)

With the 133 kWp installed capacity at Beckton Globe and East Ham Library, the additional 44 kWp to be installed at Stratford Library, and the initial phase of two further primary schools having installed 22 kWp, this brings the total installed capacity built on behalf of CEN by Repowering Finance to 381.91 kWp. We plan to carry out further community share offers over the next three years, in order to bring the solar assets already installed into community ownership.

In the medium term, Repowering London has secured funding from the Department for Energy Security & Net Zero via the Community Energy Fund, for CEN to explore the solar potential of eight further sites, with the view to continuing the expansion of installed capacity in the borough whilst also continuing engaging the community. Repowering London has also been recently successful in a match funding application for Greener Schools Pilot, for the installation of solar on three new schools.

In partnership with CEN, Repowering London is exploring other low carbon technologies and has been awarded a Community Energy Fund grant to explore the feasibility of low carbon heat technologies that are owned by or benefit the local community in some way. Repowering London is technology neutral, which means that they will continue to explore all low carbon technologies that might bring benefit to CEN and its community.

## **Business activities**

To achieve our long-term goals outlined above, we are going to:

- Expand our solar pipeline of sites in the borough, with the support of Newham Council and other partner organisations
- Expand into other low carbon technologies
- Strive to become a financially viable and independent organisation that tackles the issues we are addressing
- Grow our membership through community share offers, and strive to provide value to our members
- Deliver engagement activities in the borough, such as school energy workshops, youth training programmes, creative energy clubs and more
- Provide a platform for communities and individuals to engage in renewables
- Strengthen links with local stakeholders and businesses.

## **Marketing and community engagement**

The CEN Directors and volunteers, together with the Repowering London team working in Newham, have been promoting the project and the share offer via online promotion through the CEN Newsletter and social media, as well as flyering and word-of-mouth at volunteer meetings and pop-up events across the borough in different community hubs, such as libraries, community gardens and schools. Partner organisations and community groups have also helped spread the word about CEN across the borough and beyond.

CEN is rooted in its community, and throughout its lifetime, it will seek to keep its grassroots strong. As part of the 'Repowering London family of co-ops', CEN members will have access to a range of opportunities, including community events, an annual training programme, research opportunities and clean technology trials. Members will also be invited to all-co-ops meetings and gatherings, where they will have the opportunity to connect with members of the other Repowering co-ops and partner organisations, from other parts of London and the UK. CEN will continue to share regular updates with members through its newsletter, social media and monthly volunteer meetings.

## Capital requirements

Community Energy Newham will raise the capital to purchase the solar assets through Community Shares. Community shares are a flexible, effective and inclusive way to raise finance, and are withdrawable and non-transferable share capital, a form of equity that is uniquely available to co-operatives and community benefit societies.

The capital Community Energy Newham needs to raise in order to purchase the solar assets at Beckton Globe, East Ham Library and Stratford Library is £120,000. Below is a breakdown of the costs.

Item	Cost
Assets installation costs	£146,151.70
Fundraising costs	£14,865.41
Grant support*	£42,409
<b>Total capital cost to purchase assets</b>	<b>£118,608.11</b>

\*The London Legacy Development Corporation (LLDC) has awarded CEN with a grant of £37,200 for the installation of the solar assets at Stratford Library. LS Events donated £5,209 towards the cost of the assets.

# Financial Analysis

## Financial projections of Community Energy Newham Ltd

### Project and Loss forecast

General assumptions:

- Inflation rate is based on the UK Office for Budget Responsibility, Economic and Fiscal Outlook (EFO) from November 2023
- System degradation 0.4% a year
- The financial year starts on the 1<sup>st</sup> of July and ends on the 30<sup>th</sup> of June of the following year
- In the moment of writing this business plan, the pipeline of installed assets for Community Energy Newham has a lifetime of 16 years. This may change as the project and the financial projections evolve
- The financial forecasts in this section have been determined with the assumption that CEN will bring the installations of the two schools (see **Our long-term goals**, page 10) into ownership in Year 2.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 16
<b>Revenue</b>							
Sale of energy (on-site)	£9,283.18	£43,486.58	£57,660.38	£55,314.47	£53,387.60	£46,177.70	£43,224.86
Export of energy (grid)	£102.20	£1,283.67	£2,694.86	£2,861.00	£3,037.05	£4,027.85	£4,731.97
<b>Total income</b>	<b>£9,385.38</b>	<b>£44,770.25</b>	<b>£60,355.24</b>	<b>£58,175.46</b>	<b>£56,424.65</b>	<b>£50,205.55</b>	<b>£47,956.83</b>
<b>Operating Expenses</b>							
Generation meter charges	£10.00	£71.01	£103.90	£106.85	£110.02	£127.33	£151.60
Export sub meter charges	£10.00	£71.01	£103.90	£106.85	£110.02	£127.33	£151.60
Export meter charges	£125.00	£887.59	£1,298.81	£1,335.62	£1,375.23	£1,591.64	£1,895.01
Insurance charges	£239.77	£1,838.37	£3,042.01	£3,128.22	£3,221.01	£3,727.86	£4,438.40
Asset operations and maintenance	£471.47	£3,614.83	£5,981.58	£6,151.11	£6,333.55	£7,330.19	£8,727.35
Billing costs	£146.25	£1,338.34	£2,735.29	£2,812.81	£2,896.24	£3,351.99	£3,990.89
Provision for inverter replacements	£394.62	£3,005.47	£4,918.65	£4,918.65	£4,918.65	£3,048.61	£0
Provision decommissioning costs	£0	£0	£0	£0	£0	£0	£5,846.77
Bad debt contingency	£185.66	£635.98	£0	£0	£0	£0	£0
Contingency fund	£34.93	£270.67	£454.60	£464.00	£474.12	£482.62	£630.04
Co-op administration fees	£958.13	£5,821.10	£5,973.22	£6,142.51	£6,324.70	£7,319.94	£8,715.15

RPL management discount	£0	£0	£0	£0	£0	£0	£0
RPL value added payment	£0	£0	£0	£0	£0	£0	£0
Member administration costs	£106.69	£865.48	£1,546.08	£1,589.90	£1,637.06	£1,894.66	£2,255.79
<b>Total operating expenses</b>	<b>£2,682.51</b>	<b>£18,419.83</b>	<b>£26,158.05</b>	<b>£26,756.52</b>	<b>£27,400.60</b>	<b>£29,002.19</b>	<b>£36,802.60</b>
<b>EBITDA*</b>	<b>£6,702.87</b>	<b>£26,350.42</b>	<b>£34,197.19</b>	<b>£31,418.94</b>	<b>£29,024.05</b>	<b>£21,203.36</b>	<b>£11,154.23</b>
Depreciation	£1,131.02	£8,928.38	£15,355.18	£15,355.18	£15,355.18	£15,355.18	£15,355.18
<b>EBIT**</b>	<b>£5,572</b>	<b>£17,422</b>	<b>£18,842</b>	<b>£16,064</b>	<b>£13,669</b>	<b>£5,848</b>	<b>(£4,201)</b>
Interest payable	£0	£593.04	£4,697.39	£7,920.26	£7,376.60	£4,658.31	£1,396.36
Bank interest receivable	£0.38	£11.46	£36.43	£63.30	£90.22	£135.28	£73.80
<b>Profit before tax</b>	<b>£5,572</b>	<b>£16,840</b>	<b>£14,181</b>	<b>£8,207</b>	<b>£6,382</b>	<b>£1,325</b>	<b>(£5,524)</b>
Corporation tax	£0	£0	£0	£0	£0	£0	£0
Business rates	£0	£0	£0	£0	£0	£0	£733.99
<b>Profit after tax</b>	<b>£5,572</b>	<b>£16,840</b>	<b>£14,181</b>	<b>£8,207</b>	<b>£6,382</b>	<b>£1,325</b>	<b>(£6,258)</b>

\*EBITDA: Earnings before interest, taxes, depreciation and amortisation

\*\*EBIT: Earnings before interest and taxes

## Cash flow forecast

General assumptions:

- We pay out the shareholder interest and capital repayment for year  $n$  in year  $n+1$

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 16
<b>EBITDA</b>	£6,703	£26,350	£34,197	£31,419	£29,024	£21,203	£11,154
<b>Interest payable</b>	£0	£593	£4,697	£7,920	£7,377	£4,658	£1,396
<b>Capital payable</b>	£0	£1,303	£10,396	£18,122	£18,122	£18,122	£18,122
<b>Corporate tax</b>	£0	£0	£0	£0	£0	£0	£0
<b>Business rates</b>	£0	£0	£0	£0	£0	£0	£734
<b>Add back inverter provision</b>	£395	£3,005	£4,919	£4,919	£4,919	£3,049	£0
<b>Inverter replacement payout</b>	£0	£0	£0	£0	£0	£21,045	£0
<b>Add back decommission provision</b>	£0	£0	£0	£0	£0	£0	£5,847
<b>Decommissioning payments</b>	£0	£0	£0	£0	£0	£0	£0
<b>Add back contingency</b>	£0	£0	£0	£0	£0	£0	£0
<b>Community Fund</b>	£5,000	£1,400	£1,400	£1,400	£1,400	£1,400	£500
<b>Net Cashflow</b>	£2,097	£26,059	£22,623	£8,895	£7,044	(£20,973)	(£3,751)
<b>Balance Brought Forward</b>	£0	£2,097	£28,157	£50,780	£59,675	£58,517	£26,647
<b>Balance Carried Forward</b>	£2,097	£28,157	£50,780	£59,675	£66,719	£37,544	£22,896

## Balance sheet forecast

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 16
<b>Fixed assets</b>							
Costs	£118,608	£274,576	£265,648	£250,292	£234,937	£158,161	£66,030
Less depreciation	£1,131	£8,928	£15,355	£15,355	£15,355	£15,355	£15,355
<b>Total</b>	<b>£117,477</b>	<b>£265,648</b>	<b>£250,292</b>	<b>£234,937</b>	<b>£219,582</b>	<b>£142,806</b>	<b>£50,675</b>
<b>Current assets</b>							
Bank accounts	£6,388	£23,871	£42,027	£50,442	£57,032	£62,216	£11,389
Debtors	£0	£0	£0	£0	£0	£0	£0
<b>Total</b>	<b>£6,388</b>	<b>£23,871</b>	<b>£42,027</b>	<b>£50,442</b>	<b>£57,032</b>	<b>£62,216</b>	<b>£11,389</b>
<b>Current liabilities</b>							
Interest due to shareholders	£593	£4,697	£7,920	£7,377	£6,833	£4,115	£853
Community Fund contributions	£5,000	£1,400	£1,400	£1,400	£1,400	£1,400	£500
Provisions for inverters	£395	£3,400	£8,319	£13,237	£18,156	£40,879	£0
Provision for decommissioning	£0	£0	£0	£0	£0	£0	£10,095
Other Creditors	£0	£0	£0	£0	£0	£0	£0
<b>Total</b>	<b>£5,988</b>	<b>£9,497</b>	<b>£17,639</b>	<b>£22,014</b>	<b>£26,389</b>	<b>£46,394</b>	<b>£11,448</b>
<b>Net current assets</b>	<b>£400</b>	<b>£14,373</b>	<b>£24,388</b>	<b>£28,428</b>	<b>£30,643</b>	<b>£15,822</b>	<b>(£60)</b>
<b>Net assets</b>	<b>£117,877</b>	<b>£280,021</b>	<b>£274,680</b>	<b>£263,365</b>	<b>£250,226</b>	<b>£158,628</b>	<b>£50,616</b>
<b>Represented by:</b>							
Share capital	£117,305	£264,008	£245,886	£227,764	£209,642	£119,033	£10,301
Reserves	£572	£16,013	£28,794	£35,601	£40,583	£39,595	£40,314
<b>Total</b>	<b>£117,877</b>	<b>£280,021</b>	<b>£274,680</b>	<b>£263,365</b>	<b>£250,226</b>	<b>£158,628</b>	<b>£50,616</b>

## Financial projections of CEN Phase 1: Beckton Globe, East Ham Library and Stratford Library

### Project and Loss forecast

Site-specific assumptions:

- Price charged to the sites per unit is approximately £0.21/kWh
- Export price per unit is £0.06/kWh
- 96% of the electricity is used on site (based on billing data and demand profile)
- The financial year starts on the 1<sup>st</sup> of July and ends on the 30<sup>th</sup> of June of the following year
- Year 1 starts when the share offer period closes (April 2025) and ends on the 30<sup>th</sup> June 2025.  
This shorter financial period explains the reduced income in the first year.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 16	Total over 16 years
<b>Income</b>								
Sale of energy (on-site)	£9,283.18	£33,334.16	£32,812.88	£31,478.49	£30,380.80	£26,276.32	£24,594.78	£425,924.70
Export of energy (grid)	£102.20	£409.22	£472.86	£540.34	£611.49	£1,018.51	£1,409.23	£14,364.23
<b>Total income</b>	<b>£9,385.38</b>	<b>£33,743.39</b>	<b>£33,285.74</b>	<b>£32,018.83</b>	<b>£30,992.28</b>	<b>£27,294.83</b>	<b>£26,004.01</b>	<b>£440,288.92</b>
<b>Operating expenses</b>								
Generation meter charges	£10.00	£60.76	£62.34	£64.11	£66.01	£76.40	£90.96	£1,132.01
Export sub meter charges	£10.00	£60.76	£62.34	£64.11	£66.01	£76.40	£90.96	£1,132.01
Export meter charges	£125.00	£759.44	£779.28	£801.37	£825.14	£954.98	£1,137.01	£14,150.15
Insurance charges	£239.77	£1,456.73	£1,494.79	£1,537.16	£1,582.75	£1,831.81	£2,180.96	£27,142.28
Asset operations and maintenance	£471.47	£2,864.40	£2,939.25	£3,022.56	£3,112.21	£3,601.94	£4,288.48	£53,370.59
Billing costs	£146.25	£888.54	£911.76	£937.60	£965.41	£1,117.33	£1,330.30	£16,555.67
Provision for inverter replacements	£394.62	£2,367.75	£2,367.75	£2,367.75	£2,367.75	£497.70	£0	£20,332.00
Provision decommissioning costs	£0	£0	£0	£0	£0	£0	£3,026.64	£7,275.24
Bad debt contingency	£185.66	£340.46	£0	£0	£0	£0	£0	£526.12
Contingency fund	£34.93	£211.46	£215.44	£219.87	£224.63	£203.91	£303.63	£3,527.25
Co-op administration fees	£958.13	£5,821.10	£5,973.22	£6,142.51	£6,324.70	£7,319.94	£8,715.15	£108,460.89
RPL management discount	£0	£0	£0	£0	£0	£0	£0	£0



RPL value added payment	£0	£0	£0	£0	£0	£0	£0	£0
Member administration costs	£106.69	£648.18	£665.12	£683.97	£704.25	£815.08	£970.43	£12,077.12
<b>Total operating expenses</b>	<b>£2,682.51</b>	<b>£15,479.56</b>	<b>£15,471.30</b>	<b>£15,840.99</b>	<b>£16,238.86</b>	<b>£16,495.50</b>	<b>£22,134.52</b>	<b>£265,681.34</b>
<b>EBITDA*</b>	<b>£6,702.87</b>	<b>£18,263.82</b>	<b>£17,814.44</b>	<b>£16,177.83</b>	<b>£14,753.42</b>	<b>£10,799.33</b>	<b>£3,869.50</b>	<b>£174,607.58</b>
Depreciation	£1,131.02	£6,786.11	£6,786.11	£6,786.11	£6,786.11	£6,786.11	£6,786.11	£102,922.65
<b>EBIT**</b>	<b>£5,572</b>	<b>£11,478</b>	<b>£11,028</b>	<b>£9,392</b>	<b>£7,967</b>	<b>£4,013</b>	<b>(£2,917)</b>	<b>£71,685</b>
Interest payable	£0	£593.04	£3,519.14	£3,284.53	£3,049.92	£1,876.88	£469.22	£28,511.56
Bank interest receivable	£0.38	£10.69	£24.31	£37.23	£50.17	£33.69	£48.49	£645.79
<b>Profit before tax</b>	<b>£5,572</b>	<b>£10,895</b>	<b>£7,534</b>	<b>£6,144</b>	<b>£4,968</b>	<b>£2,170</b>	<b>(£3,337)</b>	<b>£43,819</b>
Corporation tax	£0	£0	£0	£0	£0	£0	£0	£0
Business rates	£0	£0	£0	£0	£0	£0	£362.44	£1,993.42
<b>Profit after tax</b>	<b>£5,572</b>	<b>£10,895</b>	<b>£7,534</b>	<b>£6,144</b>	<b>£4,968</b>	<b>£2,170</b>	<b>(£3,700)</b>	<b>£41,826</b>

\*EBITDA: Earnings before interest, taxes, depreciation and amortisation

\*\*EBIT: Earnings before interest and taxes

## Cash flow forecast

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 16
<b>EBITDA</b>	£6,703	£18,264	£17,814	£16,178	£14,753	£10,799	£3,869
<b>Interest payable</b>	£0	£593	£3,519	£3,285	£3,050	£1,877	£469
<b>Capital payable</b>	£0	£1,303	£7,820	£7,820	£7,820	£7,820	£7,820
<b>Corporate tax</b>	£0	£0	£0	£0	£0	£0	£0
<b>Business rates</b>	£0	£0	£0	£0	£0	£0	£362
<b>Add back inverter provision</b>	£395	£2,368	£2,368	£2,368	£2,368	£498	£0
<b>Inverter replacement payout</b>	£0	£0	£0	£0	£0	£5,060	£0
<b>Add back decommission provision</b>	£0	£0	£0	£0	£0	£0	£3,027
<b>Decommissioning payments</b>	£0	£0	£0	£0	£0	£0	£0
<b>Add back contingency</b>	£0	£0	£0	£0	£0	£0	£0
<b>Community Fund</b>	£5,000	£1,400	£1,400	£1,400	£1,400	£1,400	£500
<b>Net Cashflow</b>	£2,097	£17,335	£7,443	£6,041	£4,851	£200	(£2,256)
<b>Balance Brought Forward</b>	£0	£2,097	£19,433	£26,875	£32,916	£28,501	£19,746
<b>Balance Carried Forward</b>	£2,097	£19,433	£26,875	£32,916	£37,767	£28,700	£17,490

## Balance sheet forecast

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 16
<b>Fixed assets</b>							
Costs	£118,608	£117,477	£110,691	£103,905	£97,119	£63,188	£22,471
Less depreciation	£1,131	£6,786	£6,786	£6,786	£6,786	£6,786	£6,786
<b>Total</b>	<b>£117,477</b>	<b>£110,691</b>	<b>£103,905</b>	<b>£97,119</b>	<b>£90,333</b>	<b>£56,402</b>	<b>£15,685</b>
<b>Current assets</b>							
Bank accounts	£2,892	£20,408	£28,472	£35,133	£40,605	£49,916	£26,261
Debtors	£0	£0	£0	£0	£0	£0	£0
<b>Total</b>	<b>£2,892</b>	<b>£20,408</b>	<b>£28,472</b>	<b>£35,133</b>	<b>£40,605</b>	<b>£49,916</b>	<b>£26,261</b>
<b>Current liabilities</b>							
Interest due to shareholders	£593	£3,519	£3,285	£3,050	£2,815	£1,642	£235
Community Fund contributions	£5,000	£1,400	£1,400	£1,400	£1,400	£1,400	£500
Provisions for inverters	£395	£2,762	£5,130	£7,498	£9,866	£19,834	£0
Provision for decommissioning	£0	£0	£0	£0	£0	£0	£7,275
Other Creditors	£0	£0	£0	£0	£0	£0	£0
<b>Total</b>	<b>£5,988</b>	<b>£7,681</b>	<b>£9,815</b>	<b>£11,948</b>	<b>£14,081</b>	<b>£22,876</b>	<b>£8,010</b>
<b>Net current assets</b>	<b>(£3,096)</b>	<b>£12,727</b>	<b>£18,657</b>	<b>£23,185</b>	<b>£26,524</b>	<b>£27,040</b>	<b>£18,251</b>
<b>Net assets</b>	<b>£114,381</b>	<b>£123,418</b>	<b>£122,562</b>	<b>£120,304</b>	<b>£116,857</b>	<b>£83,442</b>	<b>£33,936</b>
<b>Represented by:</b>							
Share capital	£118,608	£117,305	£109,484	£101,664	£93,844	£54,742	£7,820
Reserves	(£4,227)	£6,113	£13,078	£18,640	£23,013	£28,700	£26,116
<b>Total</b>	<b>£114,381</b>	<b>£123,418</b>	<b>£122,562</b>	<b>£120,304</b>	<b>£116,857</b>	<b>£83,442</b>	<b>£33,936</b>

# Operations

## Lease and Power Purchase Agreement

Newham Council is the freeholder of Beckton Globe, East Ham Library and Stratford Library. Repowering Finance is leasing the roofs from the Council and has Power Purchase Agreement (PPA) arrangements in place, these legal agreements will transfer to Community Energy Newham on the purchase of the solar assets.

## Equipment

The equipment installed at Beckton Globe, East Ham Library, and Stratford Library includes the following:

Beckton Globe	East Ham Library	Stratford Library
145 x Phono Solar PS415M6-18/VH 415W Panels	181 x Phono Solar PS415M6-18/VH 415W Panels	110 x TSM-400-DE09.08 VERTEX S Trina Solar Panels
1 x Solis S5-GR3P(3-20)K Inverter	2 x Solis S5-GC(25-40K) Inverter	1 x Inverter
1 x Solis S5-GC(25-40)K Inverter	1 x Generator Meter	1 x Generator Meter
1 x Elster A1140 Generator Meter	1 x Export Meter	1 x Export Meter
1 x Elster A1140 Export Meter		

## Installation and generation

We received planning permission from Newham Council in February 2023 for the Beckton, East Ham and Stratford installations (application number 22/02921/FUL, 23/02547/FUL and 22/02912/FUL, respectively). The panels installed at Beckton and East Ham were paid by Repowering Finance in October 2023.

The solar panels are wired to inverters within the building which convert the low voltage DC output from the panels into AC power, the type of electricity we use in our homes. This electricity will feed into the main electrical distribution point for the sites, where it will be used in the first instance.

We expect the sites to use 96% of the electricity generated. The electricity will be sold under the Power Purchase Agreement between Newham Council, the building operator, and Community Energy Newham. The surplus of electricity will be exported to the national grid.

We estimate that a 177 kilo Watt peak (kWp) solar array will generate approximately 156,837 kilo Watt hours (kWh) of electricity in the first year. In average UK weather conditions, it is expected 1kWp of panels to generate between 700 and 900 kWh of electricity per year. We are using estimates of 886 W/m<sup>2</sup> (P90) and 973 W/m<sup>2</sup> (P50) generation per 1 kWp for our model.

These estimates are generated by the software used to develop the solar installation plan, PVSol, and are based on climate data from [MeteoNorm](#), a very large database of historical weather data that predicts future weather at different probabilities. This estimates how much the sun will shine (solar irradiation). In our financial calculations, we use the two estimates: very conservative value from P90; and the less conservative estimate P50. We do this to “hope for the best but plan for the worst” and make our model robust.

## **Operations and maintenance**

Solar photovoltaic panels are solid-state technology with no moving parts. As such, they tend to be robust and reliable, requiring a minimum of maintenance once installed and commissioned. They can remain operational for decades although their efficiency and output declines over the years. In our financial model, we have allowed for 0.40% drop in output per year, which is a conservative estimate compared to the industry standard.

Repowering London has been contracted by CEN to deliver the asset management and maintenance of installations. Repowering London will charge an annual fee of £2,382 for asset management and maintenance. The service agreement has an initial term of five years, when it will automatically renew, and the parties will review the annual fee amount at each renewal.

The inverters have a shorter lifetime and generally need to be replaced every 10 to 15 years. Putting money aside to cover the cost of replacing the inverters at these times has been included in the running costs for the project. Warranty of the equipment and its installation will be provided by the manufacturers and the installers, respectively.

Insurance is included in the annual running costs. The roof is being leased to CEN by Newham Council for a peppercorn rent (i.e. nothing). CEN will remain the owner of the panels throughout the life of the project, after which the panels can be donated to the

sites, if they would like to receive them. If not, money is put aside under this financial model for the panels to be removed and properly disposed of.

Below is the cleaning and maintenance schedule which is included in the lease.

<b>Time period</b>	<b>Inspection / maintenance item</b>	<b>Remote / onsite</b>
Two-yearly	Cleaning	Onsite
Annual	Roof condition Solar panels Meter Health & safety items Mounting system DC & AC cabling Inverters Distribution labels	Onsite
Six-monthly	Wear, tear and damage Emergency procedures	Onsite
Quarterly	Yield and performance report	Onsite / Remote
Periodic	AC installation in accordance with BS 7671 DC installation in accordance with BS 62446-1	Remote
Regularly	Check integrity and functionality of inverters, record any warning or error messages. By occupier in liaison with Repowering London.	Onsite / Remote

## **Workforce**

Community Energy Newham Ltd has no paid workforce, but it is supported by Repowering Ltd.

## **Equalities and diversity**

CEN is committed to inclusion and equal opportunities. We operate in a borough with high diversity, and we want this diversity to be reflected in our membership and volunteers' group. We will work on promoting our Community Membership for this purpose.

## Risk analysis and mitigation

In the Risk factors section of our share offer document, we have detailed the risks related to the project (policy, technical, financial, operations). Not all risks can be mitigated ('Acts of God') but we have planned some mitigation strategies detailed below.

### **Lower revenues than expected**

- Our forecasts use conservative figures, such as the yield rate and inflation rate. In order to forecast future electricity consumption of the sites, we have analysed the sites' historical consumption data.
- We will monitor the solar panels' performance regularly to make sure any issues are quickly dealt with.
- The installation will be fully insured for risks such as accidental and malicious damage.
- Our business model will be generating surpluses to cover any unforeseen expenses.

### **Reliance on Power Purchase Agreement with London Borough of Newham**

The project income is heavily reliant on the Power Purchase Agreement (PPA) with Newham Council. The lease and PPA are coterminous, which means that if the Council cancels the PPA, the lease ends as well. However, should this occur, Community Energy Newham will receive a compensation from the Council of the amount of the capital owed to investors.