

## Bradford Community Energy Ltd

### Executive Summary

Bradford Community Energy Ltd (BCE) is a new Community Benefit Society set up to **bring the benefits of community-owned renewables to Bradford.**

BCE believes in a world where communities can source affordable renewable heat and electricity to meet their efficient energy needs. Achieving this will deliver significant strides towards Bradford becoming a Zero Carbon economy.

BCE will:

- Help community buildings which partner with us save money on energy bills through installing renewable energy technologies
- Reduce community buildings' carbon emissions
- Support awareness about energy, climate change and fuel poverty
- Create the opportunity for people to invest in local, clean energy
- Create a Community Fund to address fuel poverty and the promotion of low carbon lifestyles
- Establish a new local business with expertise in the growing low-carbon sector of the economy
- Help to build a secure, resilient, local energy supply
- Showcase low carbon technology in the heart of the community
- Inspire others to act on climate change and fuel poverty
- Use local suppliers, where appropriate, in order to support the local economy

This is BCE's first community share offer and it seeks to raise £220,000. The offer has gained:

- Community Share Mark (awarded 3 June 2020)
- Community Shares Booster Equity backing (awarded 17 June 2020).

This share offer has two elements:

- To finance the purchase of two operational 30kW Photo-voltaic solar arrays (sites have been identified at Park Lane Centre & Mayfield Centre, Bradford, West Yorkshire) for £60,000.
- The financing of a new 104 kW Ground Source Heat Pump (GSHP) potentially to be installed at the Park Lane Centre, Bradford for £160,000.

The solar arrays were installed March 2019 and are registered for Feed in Tariff payments. The GSHP will be installed by November 2020 and is eligible for Renewable Heat Incentive payments.

Shares are priced at £1 each with a minimum purchase of 100 shares. Maximum holding £22,000. For residents of Little Horton, Bradford BD5 only, a staged payment option (4 lots of 25 shares quarterly) is available.

The share offer closes midnight of the 19th July 2020.

Full details can be found at [www.bcel.org](http://www.bcel.org)

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## What is Community Energy?

- Community led and owned renewable energy generation and sale. BCE Community Benefit Society develops and runs renewable energy installations, helping the host building reduce its carbon footprint. Each installation has a long-term power purchase agreement which sells green renewable energy to agreed providers at set rates. Some of the Society's electricity generation installations also sell surplus electricity into the local grid. BCE has ambition to replicate these schemes across Bradford
- Matched Energy supply to demand. BCE installations are carefully engineered to meet the energy demand requirements of the host buildings to ensure renewable supply can meet peak energy demands of the buildings.
- Wholly owned by the community in partnership. Through community share issues BCE is wholly owned by it's members. Each new scheme or batch of projects will be developed to be financially and technically viable have an accompanying share issue.
- Community governance. The BCE is currently governed & administered on the members' behalf by the founding members, the first Board. BCE is an independent and autonomous organisation and members are free to decide arrangements for BCE's operation and installations.

- Democratically controlled. Community Benefit Societies are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. Each member has one vote.
- Profits for community benefit. A 5% share of operating surplus generated by the installations will be used for a community-benefit fund for addressing fuel poverty in Bradford and for the promotion of a zero-carbon Bradford.
- Active local involvement. Shares will be issued with priority to local people including via staged instalments to increase accessibility.
- Mainly voluntary: BCE will be governed by a volunteer board selected by the membership.

## The story so far and BCE's relationship with Bradford Trident

Bradford Trident is a community business, a community anchor organisation, a registered charity rooted in the heart of Little Horton, South Bradford. Trident's work focuses on enterprise and employment creation, community development, environment, education and health.

In 2010 Bradford Trident emerged from an award-winning New Deal in the Community programme to be an asset-based community anchor. The charity manages a portfolio of community and business buildings giving it roots, presence and standing in the community. Trident's vision for Little Horton is a proud, healthy, active and welcoming community where families thrive.

Trident's Mission: To engage, inspire and enable people to work together to: develop their skills and enterprise, improve their health and wellbeing, celebrate their community and enhance their environment.

Trident's activities include:

- Operation and management of community owed buildings
- Accountable body for Better Start Bradford (National Lottery Funded) Partnership
- Healthy Lifestyles programme
- Operation and management of Parkside Sports Centre
- Enterprise Support & Development service
- Community Development services
- Park Lane Childrens' Nursery

In early 2018 Bradford Trident committed to installing Solar PV Arrays on some of its community buildings. A completion target of April 2019 was set so that Feed in Tariff (FIT) payments could be secured. Following a thorough feasibility assessment, Trident used its capital development reserves to finance the rapid installation and completed the project and FIT registration in late March 2019, just ahead of the final FIT deadline.

As a community anchor charity Trident is keen to support and encourage the creation of renewable energy assets in community ownership, it also has long-term plans in train to support its viability and mission delivery, but with limited capital. Consequently Trident has invested time and energy and a Community Shares Booster grant to establish BCE as a vehicle to deliver renewable assets across Bradford District, for BCE to own and operate these assets, to replicate green asset development in other community buildings across Bradford and to manage the resulting Community Benefit Fund.

The solar arrays were installed with the intention of selling them on to Bradford Community Energy so that the BCE development could benefit from the FIT allocation attached to the PV Solar Arrays and Trident's capital could be recouped for investment into other community assets supporting Trident's mission delivery.

Bradford Trident is currently represented by two of the four Directors of BCE (more independent Directors are being sought), it is the landlord of the renewable assets that are the focus of the first BCE share issue, as well as the principal purchaser of the electricity and heat generated. Trident's Facilities team are also currently acting as BCE's Project Manager of the Ground Source Heat Pump development and has initially been appointed to act as the secretariat for BCE.

BCE and Bradford Trident have a Memorandum of Understanding to define their working relationship, available at [bcel.org](http://bcel.org)

Bradford Trident is also very likely to buy shares in, and therefore become a member of, BCE.

## Community Engagement

Across Bradford's 537,000 residents there is a growing sense of urgency to establish practical zero or low carbon initiatives. This reflects the global need to re-engineer livelihoods from a carbon-based economy. The recent re-emergence of Bradford Environment Forum, the launch of the Sustainable Development Partnership and the Climate Action fund, all follow the climate emergency declarations of Bradford Council and West Yorkshire Combined Authority. These strategic initiatives are reflected by local concerns of growing fuel poverty and associated health inequalities. Communities, such as Bradford Trident's users and their Board of Trustees have initiated local responses such as the rapid installation of PV arrays on Trident centres. Similarly, the installation of a substantive Biomass boiler to heat St Stephen's Church and the building of the Fold building at Baildon Methodist Church, constructed to standards similar to those of a Passivhaus, illustrate the appetite to make change happen. The School Climate Strikes, Extinction Rebellion protests and conversations with local groups reflect the growing urgency and appetite to join local proactive movements. These are substantive Bradford grassroots examples of action to tackle climate change. Many more of them are needed.

Whilst 26% of Bradford residents are reported to follow the Muslim faith that figure rises to 61% in the Little Horton ward.

The Society' wishes to build a connection between community buildings, renewal of their assets and their users. The first renewable assets area is based in Little Horton (BD5) and as such the share offer's primary community is the residents of the Little Horton area. To facilitate share ownership in this low-income area a staged payment option is being made available for this group only.

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*Little Horton is a ward which benefits from considerable community collective action whilst its 23,000 inhabitants suffer from generations of multiple deprivation including low household incomes, poor housing conditions, large health inequalities and high levels of fuel poverty. The area has a high degree of ethnic diversity and high-density housing. The Mayfield and Park Lane Centres serve this community.*

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The Society has ambitions to replicate this opportunity across Bradford District and to build a supportive community of investors so our secondary targeted community is the residents of Bradford district and lastly we seek support from across the UK. Shares will be allocated to the BD5 community in the first instance, follow by Bradford District (BD postcodes) and the UK community last.

BCE welcomes long-term investment from both individuals and institutions.

Longer term Engagement with BCE members will include:

- annually recruiting a panel to oversee the Community Benefit Fund
- identification and review of new sites for renewable energy development
- encouraging candidates to come forward for director elections.

### Summary of business:

- Share Offer 1 project:

Stage 1: The initial infrastructure (two x approx. 30kWp solar photo voltaic arrays (PV)) have been installed (28 March 2019) and are fully functioning (see performance figures Appendix 2). All arrays have been registered for the Feed in Tariff (FITs).

Stage 2: Installation of a 104kW Ground Source Heat Pump (GSHP) at the Park Lane Centre, replacing its current aging gas boilers. The technology is eligible for Renewable Heat Incentive payments. RHI registration deadline is currently 31 March 2021.

- A willing site owner with aligned ethos. Both PV and GSHP installations under consideration are sited on/in Bradford Trident's community buildings. Bradford Trident owns and operates community buildings on behalf of the Little Horton Community. Trident will be a BCE member having a share and a vote. Trident's CEO, Carlton Smith, and Trustee, Fareeda Mir are founding members of BCE.
- Drafted lease and PPA (Power Purchase Agreement): 20year roof leases and power purchase agreements are ready for consideration for the Photo Voltaic (PV) solar arrays and

PPA and plant room lease have been drafted for the GSHP (fully commissioned target date mid-October 2020).

- Finance to be raised by Community Shares: The scheme is seeking to raise £220,000 through a Community Share offer.

  - £60,000 to fund stage 1: purchase of installed PV arrays.

  - £160,000 to fund stage 2: the installation and commissioning of the GSHP.

- Management of the project: the PV element of the project has been installed and operated by Bradford Trident for the past year. The GSHP is in development following an encouraging feasibility study. To date Bradford Trident's management and facilities teams are working on BCE's behalf with consultants and GSHP installers to progress the scheme with guidance and regular scrutiny and resulting authority provided by the BCE Board.
- Other suitable and viable community settings will be attracted to participate in the scheme over the coming years with associated share offers.
- Government policy will continue to support the roll out of renewables schemes or industry prices will continue to fall to ensure the financial viability of future schemes.

## Setting the Foundations

**Vision:** BCE believes in a world where communities can source affordable renewable heat and electricity to meet their efficient energy needs.

- Aims

Bradford Community Energy CBS aims are three-fold:

- a) To champion local renewable energy installations across Bradford and particularly on community buildings.
- b) To generate funds to address fuel poverty in Bradford district.
- c) To raise awareness and opportunity for energy conservation and support Bradford's moves towards becoming a zero-carbon district.

BCE will:

- Help community buildings which partner with us save money on energy bills through installing renewable energy technologies
- Reduce carbon emissions
- Support awareness about energy and climate change
- Create the opportunity for people to invest in local, clean energy for a modest return
- Create a Community Fund to help fund fuel poverty reduction and promotion of low carbon lifestyles
- Establish a new local business with expertise in the growing low-carbon sector of the economy
- Help to build a secure, resilient energy supply
- Showcase low carbon technology in the heart of the community
- Inspire others to act on climate change
- Use local suppliers, where appropriate, in order to support the local economy

Beneficiaries will include:

- Recipients of the community benefit activities, tackling fuel poverty.

- Community building operators and tenants who will improve the carbon footprint of their operations and through the Power Purchase Agreements will access competitive and stable priced, green locally generated energy.

BCE members-

- Whilst members, as shareholders, will receive a modest return on their investment, the primary purpose of the investment is to achieve the community benefit rather than to generate profit for investors. To ensure this, the payment of interest on withdrawable shares in Registered Societies is limited by the Financial Conduct Authority to that “sufficient to attract and retain the investment”.
- The wider environment though carbon reduction relating to power usage.

Is a community energy scheme the best way to achieve these aims and benefits? A community benefit society working to create new renewable energy infrastructure across the community and sharing the risks and potential benefits, whilst raising awareness of sustainable energy management and generation is an attractive and practicable proposition to the founding members.

## Rules of the Society

BCE is a Community Benefit Society. It was registered on 14th May 2020 with the Financial Conduct Authority, registered number **8388**. Its Registered Office is Park Lane Centre, Park Lane, Bradford BD5 0JN.

The BCE Rules set out how the Society will be run, and these are available on our website, and on request.

Each member will have one vote irrespective of the amount invested. Share interest payable to members will be determined by the Directors each year on a per share basis.

Shares are withdrawable and not transferable, and will not be listed on any stock exchange.

Members may apply to withdraw Shares. Share withdrawal is not guaranteed and the Board retains the sole discretion to return the money paid for them.

Members are protected by limited liability and are only obliged to contribute the initial cost of their Shares.

The business of BCE is managed by the Board. The Directors are elected by and from the membership. The Board may appoint two external independent Directors, who need not be members and are selected for their particular skills and/or experience.

The maximum number of Directors will be determined by a general meeting, but there shall be no fewer than three Directors.

At the first AGM, after the closure of the Share Offer, the current Board will all step down, and if they wish, stand for re-election by the membership. Any member may put themselves forward for election to the Board.

BCE has an in-built asset lock as part of its Rules. This means that the Board cannot use the Society's assets unless it is for the benefit of the community. However, the Board can return withdrawable share capital to members and transfer assets to another Community Benefit Society which has an asset lock, or a charity.

In accordance with these Rules, the Board may recommend to members that a proportion of the Society's surpluses are used to fund community projects relating to fuel poverty and low carbon lifestyles.

## Initial Financial Assessment

- Is it financially viable? The financial model illustrates the level of finance sought can be served and repaid over the lifetime of the scheme, whilst generating a steady surplus to fund community benefit activities and to pay share interest to members. The model has been independently reviewed by Culture Coop.
- What's the funding model? BCE capital assets will be solely financed by the £220,000 of community shares which includes match investment from the [Community Shares Booster programme](#). BCE has secured investment from the Community Shares Booster Programme [so](#) that for every pound we raise in the community share issue, up to a total of £100,000, the Booster Programme will invest a matching pound. If we raise more than 55% of our target raise of £220,000 the Booster investment will reduce accordingly. If we are successful, therefore, the Booster Programme will be a member of the Society and will have the same rights to vote, receive interest on shares and withdraw their shares as all other investors.

Bradford Trident has independently secured £10,000 of funding from the Community Shares Booster Programme to finance the establishment of BCE and the launch of the share offer.

- Can we make it work? Risks are present but are low, mitigated or manageable. The initial PV facilities have been installed and are fully operational with output as expected. The GSHP feasibility report is positive and highlights that the scheme is based on tested technologies that have been functioning well since the 1950's. Ground conditions appear favourable and similar schemes perform well. The schedule for completion is October 2020.

- What the share investment will finance:

Amount raised	Minimum £60K	Maximum £220K
Purchase of existing PV schemes	£57,000	£57,000
GSHP	Not applicable	<u>£158,000</u>
Boreholes		£70,000
Heat Exchangers		£45,000
Associated works		£33,000
Contingency		£10,000
Working capital	£orkin	£orkin
Getting Investment ready	£ettin	£ettin
Launching the Offer	£5,150	£5,150
<b>Financed by</b>		
Community shares	£60,000	£220,000
Loan finance	Not applicable	Not applicable
Booster Grant (secured by Bradford Trident Limited)	£10,000	£10,000

## **Accounts**

BCE was established in May 2020 and as such does not have any published accounts to date.

## **Financial Projections**

The following information is based on BCE's financial model, which has been externally reviewed.

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Bradford Community Energy BCE

### Income and Expenditure Account

<b>PV Only (Minimum Target)</b>	<b>Year 2020/21</b>	<b>Year 2021/22</b>	<b>Year 2022/23</b>	<b>Year 2023/24</b>	<b>Year 2024/25</b>	<b>Year 2029/30</b>	<b>Year 34/35</b>	<b>Year 2039/40</b>
<b>Total income</b>	£3,684	£6,321	£6,401	£6,482	£6,564	£6,990	£7,444	£5,417
<b>Operating profit (loss) before depreciation, interest on capital and corporation tax</b>	£2,308	£4,918	£4,970	£5,022	£5,075	£5,346	£5,628	£4,418
<b>Community fund donation</b>	£246	£249	£191	£254	£256	£270	£284	£24
<b>Net profit (loss) after depreciation, interest on capital and tax</b>	<b>-£2,438</b>	£1,299	£1,408	£1,357	£1,426	£1,716	£1,095	£316
<b>Accumulated profit</b>	<b>-£2,438</b>	<b>-£1,139</b>	£269	£1,626	£3,052	£4,768	£5,863	£6,180

<b>GSHP &amp; PV (Maximum Target)</b>	<b>Year 2020/21</b>	<b>Year 2021/22</b>	<b>Year 2022/23</b>	<b>Year 2023/24</b>	<b>Year 2024/25</b>	<b>Year 2029/30</b>	<b>Year 2034/35</b>	<b>Year 2039/40</b>
<b>Total income</b>	<b>£9,742</b>	<b>£21,401</b>	<b>£21,707</b>	<b>£22,018</b>	<b>£22,333</b>	<b>£23,976</b>	<b>£25,742</b>	<b>£25,090</b>
<b>Operating profit (loss) before depreciation, interest on capital and corporation tax</b>	£6,982	£17,593	£17,835	£18,080	£18,328	£19,623	£21,007	£20,946
<b>Community fund donation</b>	£813	£824	£777	£848	£861	£924	£993	£790
<b>Net profit (loss) after depreciation, interest on capital and tax</b>	<b>-£6,231</b>	£5,816	£6,054	£6,115	£6,299	£7,206	£8,196	£8,007
<b>Accumulated profit</b>	<b>-£6,231</b>	<b>-£415</b>	£5,639	£11,755	£18,054	£52,708	£91,793	£132,588

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Bradford Community Energy BCE

### Balance Sheet

<b>PV Only (Minimum Target)</b>	<b>Year 2020/21</b>	<b>Year 2021/22</b>	<b>Year 2022/23</b>	<b>Year 2023/24</b>	<b>Year 2024/25</b>	<b>Year 2029/30</b>	<b>Year 34/35</b>	<b>Year 2039/40</b>
<b>Fixed assets</b>	£54,000	£51,000	£48,000	£46,134	£43,075	£28,851	£14,328	£0
<b>Current assets</b>	£3,808	£8,480	£9,831	£10,098	£11,567	£19,094	£24,256	£25,034
<b>Current liabilities</b>	£246	£619	£562	£606	£590	£511	£1,354	£1,356
<b>Net assets</b>	£57,562	£58,861	£57,269	£55,626	£54,052	£47,434	£37,230	£23,678
<b>Reserves</b>								
<b>Balance brought fwd</b>	£0	£57,562	£58,861	£57,269	£55,626	£48,718	£39,735	£26,962
<b>Profit/loss for year</b>	<b>-£2,438</b>	£1,299	£1,408	£1,357	£1,426	£1,716	£1,095	£316
<b>Member share capital</b>	£60,000	£60,000	£57,000	£54,000	£51,000	£36,000	£18,000	£0
<b>Cumulative reserves</b>	£57,562	£58,861	£57,269	£55,626	£54,052	£47,434	£37,230	£23,678

<b>GSHP &amp; PV (Maximum Target)</b>	<b>Year 2020/21</b>	<b>Year 2021/22</b>	<b>Year 2022/23</b>	<b>Year 2023/24</b>	<b>Year 2024/25</b>	<b>Year 2029/30</b>	<b>Year 2034/35</b>	<b>Year 2039/40</b>
<b>Fixed assets</b>	£204,100	£194,188	£184,226	£175,350	£165,229	£114,949	£63,108	£9,689
<b>Current assets</b>	£9,669	£25,397	£30,413	£34,405	£39,825	£69,759	£94,685	£122,899
<b>Current liabilities</b>	£0	£0	£0	£0	£0	£0	£0	£0
<b>Net assets</b>	£213,769	£219,585	£214,639	£209,755	£205,054	£184,708	£157,793	£132,588
<b>Reserves</b>								
<b>Balance brought fwd</b>	0	£213,769	£219,585	£214,639	£209,755	£205,054	£184,708	£157,793
<b>Profit/loss for year</b>	<b>-£6,231</b>	£5,816	£6,054	£6,115	£6,299	£7,206	£8,196	£8,007
<b>Member share capital</b>	£220,000	£220,000	£209,000	£198,000	£187,000	£132,000	£66,000	£0
<b>Cumulative reserves</b>	£213,769	£219,585	£214,639	£209,755	£205,054	£184,708	£157,793	£132,588

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Bradford Community Energy BCE

## Cashflow Statement

<b>PV Only (Minimum Target)</b>	<b>Year 2020/21</b>	<b>Year 2021/22</b>	<b>Year 2022/23</b>	<b>Year 2023/24</b>	<b>Year 2024/25</b>	<b>Year 2029/30</b>	<b>Year 34/35</b>	<b>Year 2039/40</b>
Net operating cash flow	£808	£4,672	£4,644	£4,851	£4,957	£6,062	£6,043	£5,507
Net investing cash flow (purchase of assets)	-£57,000	£0	£0	-£1,194	£0	£0	£0	£0
Net financing cash flow (community shares)	£60,000	£0	-£3,293	-£3,390	-£3,488	-£3,975	-£5,355	-£5,823
Net cash movement	£3,808	£4,672	£1,351	£267	£1,470	£2,087	£688	-£316
Opening balance	£0	£3,808	£8,480	£9,831	£10,098	£17,007	£23,568	£25,350
Closing balance	£3,808	£8,480	£9,831	£10,098	£11,567	£19,094	£24,256	£25,034

<b>GSHP &amp; PV (Maximum Target)</b>	<b>Year 2020/21</b>	<b>Year 2021/22</b>	<b>Year 2022/23</b>	<b>Year 2023/24</b>	<b>Year 2024/25</b>	<b>Year 2029/30</b>	<b>Year 2034/35</b>	<b>Year 2039/40</b>
Net operating cash flow	£4,669	£16,768	£17,773	£18,304	£18,898	£21,916	£26,021	£28,307
Net investing cash flow (purchase of assets)	-£215,000	-£1,040	-£1,043	-£2,239	-£1,048	-£1,061	-£1,074	-£1,088
Net financing cash flow (community shares)	£220,000	£0	-£11,715	-£12,073	-£12,430	-£14,218	-£19,206	-£21,351
Net cash movement	£9,669	£15,728	£5,015	£3,992	£5,420	£6,637	£5,741	£5,869
Opening balance	£0	£9,669	£25,397	£30,413	£34,405	£63,122	£88,945	£117,030
Closing balance	£9,669	£25,397	£30,413	£34,405	£39,825	£69,759	£94,685	£122,899

## Risk Register

<b>Risk</b>	<b>Comments</b>
<b>Renewable Energy Industry Risks</b>	
BCE's financial projections assume the price we will charge Sites for electricity will rise at 2% per annum (RPI). However, the market price for electricity may not increase in line with these projections, resulting in lower income from electricity sales.	DECC figures show that electricity prices have increased by an average of over 4% per annum between 2003 and 2018 and are predicted to rise by an average of 2% per annum over the next 20 years.
Abnormal short-term weather conditions could affect expected levels of electricity generation.	Our use of industry standard data should mean that estimations of yield are correct over the long term, irrespective of short-term fluctuations.
Operational costs may rise at a faster rate than income during the life of the Project.	The Feed-in Tariff is index linked to RPI and the Renewable Heat Incentive is index linked to CPI
Unexpected increases in installation costs.	Our installers undertook site visits before providing estimates, and contingency has been included in the amount to be raised through this Share Offer.

<b>Operational Risks</b>	
Delay to the GSHP installation may mean BCE is unable to accredit it before the end of the eligibility period. This would mean the GSHP installation would not qualify for the RHI payments and the business model as it stands would not be viable.	The project plan is reviewed regularly at Director level. The Directors have made our installers aware of the accreditation deadline, and plan to include it in the installer's contract.
The equipment may not function effectively, for example, due to damage, faults, or issues with the local geology.	BCE will follow all technical advice and best practice. BCE and insure the GSHP, and we will monitor electricity and heat generation and equipment performance.
Heat demand is lower than has been modelled.	The Board and membership would have to reflect upon the resulting financial performance and seek to adjust parameters (sale price of heat, interest paid, community fund contribution) accordingly.
Issues with the building structure may cause damage to the panels, GSHP or interrupt production.	Structural surveys of the buildings have confirmed they are suitable for the installation of solar panels and GSHP.
<b>Risk</b>	<b>Comments</b>
<b>Financial Risks</b>	
There is a risk that BCE is unable to raise enough equity via the Share Offer to pay for the PV panels and GSHP installation.	Community consultation and engagement has begun, and further publicity is planned. In the event the Minimum is not raised, the Project will

	not proceed, and Application Monies will be returned to Applicants.
The Board has made a series of assumptions and estimates in preparing the financial model for the Project, which spans 20 years. These estimates and assumptions may not be correct.	The financial model has been reviewed by Coop Culture.
BCE may fall victim to criminal behaviour such as fraud or theft.	BCE has documented financial procedures, and an anti-money laundering policy.

People Risks	
BCE may not be able to attract and retain directors with enough capacity and capability to deliver the project.	In the short term, the Directors are committed to delivering the Project and have engaged professional expertise when required. The current Directors keep the composition of the Board under review. In the longer term, it is planned for the day to day administration of the Project to be outsourced.

Legal and Regulatory Risks	
There is a risk that BCE is not compliant with applicable regulation or requirements.	BCE has documented policies in relation to key areas of regulation. In addition to the skills within the Board, BCE has engaged professional expertise when required.
BCE may incur liability under contracts or where it has a duty of care.	Contractual terms are reviewed to ensure obligations are understood. BCE has Public Liability Insurance.

Risk	Comments
<b>Commercial Risks</b>	
The Sites and their landlords may decide they no longer wish to proceed with the leases and/or installations	BCE has developed a non-binding Memorandum of Understanding with Bradford Trident and tailored our offer to the Sites' requirements. BCE will not commit funds raised from this Share Offer unless and until agreements have been secured.
Suppliers, contractors or the Sites purchasing electricity and/or heat may fail to meet their obligations.	The Board plans to include the RHI accreditation deadline in the installer's contract and enter into a Power Purchase Agreements with each Site.
There is a risk that the Sites may be sold.	New Site owners would be subject to BCE's lease. The Power Purchase Agreements would not be binding on a new owner. However, as we offer rates below the price their main supplier charges, it is likely that they would choose to enter new contract with us. If they chose not to, this would result in a significantly lower share interest rate and a smaller Community Fund.

## Stakeholders and Decision Makers

### The Board

Bradford Community Energy was set up in May 2020 as a Community Benefit Society.

The Board of Directors as at the date of this document comprises:

#### **David Spicer, BSc (Hons), MBA, PhD, FHEA, AFCIPD**

David is Director of Business Engagement in the Faculty of Management Law and Social Sciences and is leading on the development of the School of Management's programme and portfolio in respect of support for small business and entrepreneurship. David has over 20 years of experience in higher education and returned to Bradford (where he began his academic career) at the start of the 2019/20 academic year, having previously led the Business School at the University of Salford.

David's research interests include organisational learning, change and leadership and he has undertaken research and consultancy and delivered executive education in both SMEs and with large corporate firms. He currently teaches on both the Undergraduate and Postgraduate programmes within the School of Management.

David is a former non-executive director of Salford Professional Development and the Chairperson of Oakworth Juniors Football Club (a community interest company).

#### **Fareeda Mir**

Fareeda has worked in community development for the past 15 years with 12 years in the NHS in the health and wellbeing arena. She has been involved with Bradford Trident since its early days and in 2003 was the Neighbourhood Development Officer for the Little Horton ward for 6 years. She next took on the role managing the Women's Centre for Council for Mosques The centre was built to serve women from all backgrounds. Fareeda then became a Trustee for Bradford Trident as well as Chair of trustees for West Bowling Training and Advice Centre. Her current role is working in the NHS full time where she works in the community dealing with patients and working in partnership with statutory and voluntary services.

As ward councillor for Little Horton she is active dealing with local issues to benefit the community in which she lives and works and also helping those that are in need of support. Her spare time is spent with her elderly parents and as taxi driver for her 3 children.

#### **Bob Cannell FCIPD**

Bob has a lifetime's experience of working in and with co-operatives. He helped Suma become the UK's biggest worker owned cooperative as their personnel officer and, as a consultant, he has worked with hundreds of other UK and European coops. His speciality is people and developing cooperative teams for business success. Bob was the UK representative to the European and World sectors of the International Cooperative Alliance in Brussels, in the latter he had the unassuming job title of Vice-President Europe North! In the 1980s and 90s Bob was a Bradford City councillor (for Bradford Moor and then Shipley West). He was Chair of Public Health and Chair of Economic Development and also endured four years as a director of the old Bradford Health Authority.

Bob is a keen cyclist, runner and rower (with Bradford Amateur Rowing Club at Saltaire) and lives in Heaton.

**Carlton Smith BSc, MSc, DipMS**

Carlton is CEO and Company Secretary for Bradford Trident. Trident is the Community Anchor Organisation for Little Horton and manages two community centres, a sports centre, medical/children' centre and a business centre for the benefit of the local community. Surpluses generated by the Trident's assets are invested into community services including healthy lifestyles, enterprise support, community development, bike library and a pre-school nursery. Trident also hosts the Better Start Bradford partnership. Carlton was previously an aid worker in Kurdistan for a few years before becoming CEO for Bradford Community Environment Project (BCEP) overseeing the establishment of many environmental projects including: Scrap Magic, Wibsey Community Gardens, the Urban Design Service and the resettlement of Bradford RePaint.

Anyone who invests in BCE will become a member of the Society with democratic control and the opportunity to elect and/or become a member of the Board of the Society.

The founding members are the initial Directors of the Society and any personal financial benefit accruing to them is limited to that available to anyone in the community by virtue of purchasing shares.

**Remuneration**

Directors are all volunteers and are not remunerated by the Society. Under the Rules the Society may pay Directors expenses incurred in connection with the performance of their role.

Carlton Smith has been paid by Bradford Trident, partly through the Booster Grant to prepare and establish the offer document, business plan and rules of the Society. All work produced has been with the guidance, sight and final approval of the BCE Board.

- Our team:

<b>Agent</b>	<b>Role</b>
Directors	Strategic direction, organisation and project development, overview and guidance.
Carlton Smith (Director, Secretary, CEO of Bradford Trident)	Implements director's plans, co-ordinates communications, reports to Booster on behalf of Trident.
Bradford Trident Facilities Team	Operated the solar PV array: maintenance, care and meter reporting. They have regularly completed the claims for the FITS payments for the past 12 months with support from Trident's Accountant.
Community Shares Unit	Advice and guidance on developing and running the community share issue
Coops-UK	Advice and guidance on establishing the Community Benefit Society
Quantum Strategy and Technology	Feasibility assessment of PV Solar Arrays
Gordons LLP (Solicitors)	Legal review of the lease
Peardrop Creative	Website creation
Scenthound Graphic Design	Offer Document Graphic design and social media planning.
PureElec	PV installers
Bradford Trident	Initial investor (in kind), landlord, power purchaser, catalyst for CBS creation. Project 1 delivery partner.
Co-op Culture	Financial and technical review of the business plan.
Community Energy England	Advice and guidance on best practice in running a community renewable energy company.
Locality	Support and encouragement in establishing CBS.
Good Energy	FITS payments and purchase of surplus Electricity for the grid
OFGEM	Renewable Heat Incentive payments

## Decision Making Process & Timetable

- Building trust & going at the right pace:

Monthly updates on the GSHP development are shared with the founding members as the development team negotiates agreement of the scheme's specification.

- Decisions to date:

- PV scheme: The PPA and leases have been drafted for consideration between the Society's Board and Bradford Trident, a balance has been proposed between

- providing affordable stable green energy to Trident and its tenants and a positive financial outcome for the Society
- GSHP: Bradford Trident's Facilities Team is project managing the GSHP development on the Society's behalf and is overseen by the Society's Board.
  - The Society will assume full control of the GSHP system and PV operation following the transfer of the renewable assets (July 2020) when commercial contracts will be put in place.
  - Communication methods: Emails will be the predominate means of communication between members, the Society secretary and Board members. Members will have the opportunity to opt in for equivalent paper communications. Documents will be regularly published on the Society webpages ([www.bcel.org](http://www.bcel.org)) (performance reports, annual reports, new project plans, notices) and annual meetings and Board meeting will provide opportunities for members and Board to meet face to face.
- Managing expectations: The scheme is based upon a cautious financial model which has undergone an independent technical assessment based on 12 months operational figures of the solar arrays and projections for the GSHP. The share offer is designed to be a long-term commitment as only limited capital repayment is modelled from years 3 to 19 (typically 5% of the total share offer value). Share interest is expected to be paid at 3.25% after the first year. However, this is NOT fixed and may vary subject to the schemes combined performance and the judgement of the Society's Board.
  - Extending the share offer (or not): It is the Society Board's decision as to whether to proceed, cancel or extend share offers including this one and any future offers.
  - Timeline  
The share offer launch on Monday 22<sup>nd</sup> June 2020 leaving the PV arrays 18¾ years of guaranteed Feed in Tariff (FIT) remaining.  
The GSHP has an expected commission date of Monday 16<sup>th</sup> October 2020, 6<sup>th</sup> months in advance of the Renewable Heat Incentive (RHI) cut off deadline of April 2021.  
There are no planning permission requirements.  
There is no Environment Agency licensee requirement as a closed loop heat extraction system is being used.  
Exploration permissions need to be obtained from the British Coal Board prior to drilling (July 2020).

## Memorandum of Understanding (MoU) Appendix 1

- The parties (Bradford Community Energy and Bradford Trident) agreement to work together to progress and manage the scheme for the benefit of the community.
- Trident proposes to lease the roofs and plantrooms required by BCE to house its generation equipment for the period of the scheme (20 years). Trident proposes to purchase power and heat generated by the scheme to meet its operational requirements for the period of the scheme (20 years). BCE proposes to provide Bradford Trident full access to the electricity and heat generated for the period of the scheme.

Both parties propose to periodically review rates and charges against the business model and the Society's performance. The presented business model and forecasts providing the guiding principal upon which any review is conducted.

Both parties will consider leases and PPAs for the period of the scheme.

- Aims & expectations – It is BCE's aim to replicate these processes and practices across other community buildings around Little Horton and Bradford district to increase community ownership of renewable generation and use. Each scheme is intended to be independently financially viable.

- Outline suggested terms for lease & PPA:

- Lease 20 year £120 per site plus RPI (inflation) annual uplift for which BTL will provide performance monitoring data and reports including energy generation and use as well as filing FIT and RHI claims, monitoring and reports.
- Generated electricity sold at 9.9p/KWh plus annual RPI uplift on the anniversary.
- Generated heat sold at 3.21p/KWhth plus annual CPI uplift on the anniversary.

The Society Administration is an independent agreement not tied to the PPA or lease agreements. As such it maybe varied or changed through renegotiation by the BCE Board. It is suggested that £450 plus RPI (inflation) annual uplift be paid to BTL for which BTL will provide administrative support to the Society including issuing member account statements, AGM notices, Board meeting support services.

- Data sharing & confidentiality: GDPR compliance permissions and procedures drafted ready for implementation. There is no permitted sharing of members' information beyond regulators (Financial Conducts Authority, UK Coops).

- *Agreements between BCE and Bradford Trident and related parties will be reviewed by independent Board members and considered against a range of commercial options.*

*Agreements will be reviewed on or near their 5year anniversaries (2025, 2030 and 2035).*

## Host Site Liaison & Project Activities

It is proposed that Bradford Trident's CEO and core team will provide support functions to the Bradford Community Energy including liaison, marketing, financial reporting, regulator control and member engagement for an annual society administration fee of £450 (plus annual RPI increase) which equates to circa 15 hours per year. The Society's Board may decide to make alternative arrangements.

## Site & Technical

Both buildings host local charity organisations, small businesses, a childcare nursery and community halls.

The scheme is predicted to make Carbon savings of up to 40 tonnes per annum.

### 1. Park Lane Centre



PV Total Installed Capacity: 28.20kW

PV Declared Net Capacity (kW):  
27.05

PV Estimated Annual Generation  
(kWh): 23,462

**Actual Annual Generation (2019-20): 22,123 kWh 94% of estimate**

PV is installed on the main south facing roof.

Due to the systems modest size it is assumed that 50% of the output from the PV system is exported.

PV modules 94 x 300kW

Inverters 1

Orientations 1

FIT registration from 02/04/2019

Environmental Performance Certificate (EPC) rating B (49)

### GSHP

The system is based upon heat collected from ground water accessed via vertical approx. 150m deep boreholes beneath the Park Lane Centre. The heat will be concentrated via four 26kW heat pumps and fed into the upgraded water based central heating system at the centre.

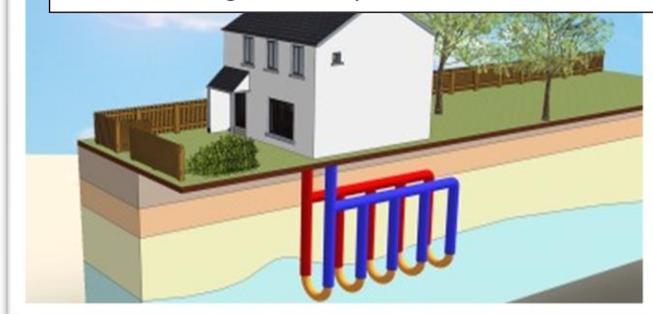
Intended installed capacity: 104kW

Estimated Annual Generation (kWh):150,000

GSHP supplied via two 150m vertical boreholes within the Park lane Centre grounds tapping into the aquifers within Pennine Lower Coal Measurers formations.

4 x 26kw Heater Pumps

Illustration of GSHP system thanks to the British Geological Survey.



Water based enhanced central heating system.

The Park Lane Centre is sited on a [Medium-Low Groundwater Vulnerability](#) area, so it is not in a Groundwater Source Protection Zone. The strata below the site are **Secondary A** - permeable layers capable of supporting water supplies at a local rather than strategic scale.

These are generally aquifers formerly classified as minor aquifers.

As a closed loop vertical GSHP system is envisaged there are no Environment Agency permits required. However as there are thin coal measures in the area a permit to drill boreholes is required from the Coal Authority, this can take up to 5 weeks to obtain.

## 2. Mayfield Centre



Total Installed Capacity: 30.00kW

Declared Net Capacity (kW): 27.05

Estimated Annual Generation

(kWh):24,000

**Actual Annual Generation (2019-20):**

**26,942 kWh 112% of estimate**

PV is installed on the pitched roofs facing SW and SE.

Due to the systems size the site is automatically assumed to export 50% of the PV output.

PV modules 100 X 300kw

Inverters 1

Orientations 2

Environmental Performance Certificate (EPC) rating D (79)

### Productivity of the PV Solar Arrays

Both Mayfield and Park Lane arrays have been operational for 12 months, their combined output has exceeded the technical estimations by 3.6% over the year.

Array	Generation Estimate (kWh)	Generation Actual (kWh)	Performance
Mayfield	24,001	27,033	112.6%
Park Lane	23,462	22,123	94.3%
Combined	47,463	49,156	103.6%

FIT payments have been received for the entire generated output. As each array is 30kWp or less it is assumed that 50% of their output is exported to the grid.

13.5 tonnes of Carbon Dioxide avoided (based on 275 grams of carbon dioxide per kilowatt hour of electricity).

### Feasibility of the Ground Source Heat Pump

The Energy Performance Certificate for the Park Lane Centre indicates the energy efficiency of the buildings fabric and energy systems reflecting the modern design and construction techniques used in the building giving an Energy Performance Asset Rating of 49 rated B.

A reasonable portion of the ground floor benefits from underfloor heating (nursery, community hall, reception area, cafe) whilst the remainder of the building uses a water based central heating system. Analysis of gas consumption records suggest an annual heating energy demand of 150,000 kWh. The good thermal envelope of the building and its existing heating infrastructure support ground source heating options.

Analysis of 11 deep boreholes within 1 km of the site strongly suggest suitable aquifers within the Pennine Lower Coal Measures formation sit below the site at a depth of 80-150m. A closed loop Ground Source Heating system could operate well in such an environment. Further technical data is being sourced from the British Coal Board, the British Geological Survey and the Environment Agency to guide and inform system design and particularly borehole installation and construction.

Multiple GSHP installers have indicated that a closed loop vertical borehole GSHP system is both technically and financially viable if RHI can be secured. The technology is eligible for Non-Domestic RHI payments.

### Development Costs

Development expenditure to date has included technical feasibility work, community consultation, review of financial model, planning advice, insurance, Offer Document review, project management, administration and legal costs. We anticipate that further development costs will be funded from the proceeds of the Share Offer including but not limited to payment for project management.

### Lease & PPA

Roof leases and power purchase agreements (PPA) with Bradford Trident have been drafted ready for consideration by the Society's Board. Trident has existing and continuing lease agreements with their tenants which include the supply of electricity and heat. A draft lease for housing the GSHP and boreholes is also ready for consideration by the Society's Board, with proposed terms as per the attached financial model (£120/year). A draft PPA for the heat generated is also ready for consideration.

### Grid Connection

All grid connections are in place and functioning following the installation and commissioning of the solar arrays in March 2019. Grid connections are via Northern Grid and the green energy is sold via Good Energy.

### Planning Permission

Neither the solar arrays nor the GSHP require planning permission.

### Installers & Contractors

The Solar PV systems were installed and commissioned by PureElec in March 2019, following a competitive tender exercise in late 2018. PureElec is an independent MSC certified installer.

PureElec installation cost for the two sites were:

Site	Installation Cost	Net Present Value	BCE Purchase Price
Park Lane PV	£33,294	£31,529	£28,500
Mayfield PV	£32,976	£31,327	£28,500
Total	£66,260	£62,956	£57,000

An additional £3,000 is to be raised in stage 1 to contribute to cashflow liquidity in year 1.

## Insurance

The Solar PV systems are presently insured by Trident's building insurance. Once the share offer is complete and if the systems are bought by BCE then a bespoke insurance policy will be put in place at an estimated annual cost of £300 (as per received quotes) for both PV arrays and £220 for the GSHP system, once installed. The Board will also consider insurance to cover: Business interruption and Public liability.

## Financial Planning

An independently reviewed financial model based on current industrial values has been developed for the scheme and suggests the schemes are viable and carries a low level of risk.

As the PV arrays have already been installed and commissioned by Bradford Trident at a capital cost of £60,000. The associated risk of the PV scheme has thus been dramatically reduced.

The Society is seeking a further £160,000 to install a GSHP system in the Park Lane Centre to provide low-carbon heating for the foreseeable decades. The system is compliant with eligibility for Non-domestic Renewal Heat Incentive payments, guaranteed and index linked for the next 20 years.

Booster programme Equity support has been secured to match local investment pound for pound to a maximum Booster investment of £100,000. This enables the Society to offer staged payments buy-in from local investors and this in turn extends the accessibility of the share offer.

## Financial Viability

### Financial model

- Scenarios:

The model is sensitive to generated output: a reduction of overall output of 1 or 2% does affect the schemes fixed rate viability but breaks even over the term.

The model performs favourably to higher RPI (above 2%) but viability is questionable when RPI drops below 1.75%.

The financial model is based on the following assumptions:

Item	Stage 1	Stage 2
Full share offer	£60,000	£220,000
Maintenance cost per year	£387	£800
Major repair costs per year	£239	£1279
Invertors replacement in year 11 (for 2)	£7000	£7000
Electricity sold at rising with RPI	9.9p per kWh	9.9p per kWh
Electricity Exported to the grid	50%	50%
FIT rates as published	rising with RPI	rising with RPI
Heat sold at rising with RPI	N/A	3.21p per kWhth
RHI rates as published	N/A	rising with CPI
Retail Price Index (RPI) applied to FITs, electricity price, all costs	2% per annum	2% per annum
Consumer price Inflation (CPI) applied to RHIs.	1.5% per annum	1.5% per annum
Community benefit fund % of operating surplus subject to annual review by Society Board	5%	5%
No Capital withdrawals in years, subject to annual review by Society Board	Years 1 and 2	Years 1 and 2
Capital withdrawal rates subject to annual review by Society Board	5% in all years till year 15-19=6%, year 20=10%	5% in all years till year 15-19=6%, year 20=10%
The scheme runs for	20 years.	20 years
Investor return, subject to annual review by Society Board	3.25%	3.25%
Panel performance degradation rate:	0.72% per annum	0.72% per annum
GSHP heat output modelled.	N/A	No decrease

- Ongoing revisions

The elected Board will monitor scheme performance and adjust rates accordingly to maintain scheme viability.

- Business Plan

It is the stated aim of the Society to seek other investment opportunities in the ward and district following a similar community share finance model and building upon the Society's expertise.

- Input to management accounts

As BCE is a newly established organisation, we can't present historic financial performance data.

Performance figures for first 12 months of the PV operation area attached Appendix 3. The Society's secretariat will provide the Board quarterly management accounts once the Society is operational.

## Funding Plan

- Aims: the minimum target for the share offer is to raise £60,000 to purchase the Park Lane and Mayfield solar arrays. However, if the upper target of £220,000 is raised then BCE will also progress the Ground Source Heat Pump installation at Park Lane. Please note if £120,000 or more of shares are purchased by individuals then the Booster Equity match will purchase to a maximum of £100,000 of the remaining shares available.
- Future separate independent share offers for new schemes are intended by the Society once it has established a track record.
- Some of the operating surplus of the Society will be used to finance a Community Benefit Fund intended to provide resources towards tackling fuel poverty. It is expected that after the first year the annual financial return to shareholders will be 3.25%.
- Risks mainly relate to the longer-term performance of the panels and heat transfer coefficient of the aquifer and future reductions in the Retail Price Index (RPI).
- Grant funding
  - BCE has no grant funding. A grant of £10,000 was secured by Bradford Trident to establish BCE and develop and launch the share issue.
- Donations
  - There is no donation dependency.

### • Community shares

A Share offer document has been prepared and the share offer awarded the Community Shares Standard Mark.

Share offer opens on 22 June 2020 after 1 month of lead in publicity and share purchase

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*The Residents of Little Horton (BD5) will be given preference for shares and will be able to take advantage of four staged payments of £25 to build their 100 shares purchase within the first year. This option is available thanks to support from Booster Equity.  
Second priority will be to residents of Bradford District.  
Remaining shares will be available to UK residents via the website application form.*

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window of 4weeks, with option to extend to 6 weeks.

- Social investors / Bank loan
  - There is no bank loan or social investor involvement beyond Booster Equity match.

- *Repayment priorities*

- Shares will be repaid if members request to withdraw their shares, on a first come first served basis, subject to approval by the BCE Board.
- The board may suspend the right to withdraw shares.

## Financial Management

BCE is considering a proposal from Bradford Trident to provide secretarial function including financial management for the Society in exchange for a modest annual administration charge (£450). Part of this function would be to provide account management for BCE including claiming the FITs, Renewable Heat Incentive (RHI), and associated costs. An open book policy will be in place permitting scrutiny of the books and finance systems by any member within a week following request.

Trident operates using accountancy Software and a separate business account would be created for all BCE financial activity to allow detailed reporting and audit trail. Information is held remotely and automatically backed up.

- Reporting to group.

The Society secretary will prepare reports for the Board and the Board will oversee preparation of reports for the membership.

- Reporting to funders

The Society will be responsible for reporting relating to Booster Equity.

Trident is responsible for reports to the Community Share Unit relating to the Booster grant.

- Bank account access/management.

BCE is opening a dedicated account with the Co-operative Bank with two-person payment authorisation procedures.

If the account is not operational by 22<sup>nd</sup> June then the Bradford Trident's CAF Bank account will be used, and a dedicated accounts envelope will be applied to all funds. A formal agreement will be put in place to ensure the money is formally recognised as a BCE asset. A full audit trail will be maintained. The account is operated via a two-stage authorisation procedure following payment request being entered independently by the bookkeeper.

- Operating & start-up costs

Bradford Trident have secured the Booster grant (£10,000) for the start-up costs and share issue costs. BCE has a proposal from Trident for them to continue to support the Society in return for an Administration fee. BCE could review such an arrangement at its first AGM or subsequent meetings.

- Cash flow plan.

The finance model is suggestive of an adequate cash flow. A provision for £3,000 (stage 1) increasing to £5,000 (stage 2) has been made as part of the share offer targets and budget. Major outlays for the Society will be payments of share interest and repayment of capital to members who request to withdraw their shares. Both are at the Boards discretion. Share

interest payments will be made after their approval by members at the AGM following the financial year to which they relate.

- Construction finance & staged payments.

The PV arrays are already operational. The GSHP is scheduled for commissioning in October 2020. A 50%, 40% and 10% payment schedule is envisaged over the 3 months of the GSHP's installation.

- Finance raising timetable.

<b>Event</b>	<b>Date</b>
Share Offer opens	22 June 2020
Share Offer closes	19 July 2020
Legal arrangements signed	Mid July 2020
GSHP installation	July-September 2020
GSHP Commission	October 2020
First AGM	July 2021
First share interest award	July 2021
Community Fund activity	From September 2021

Extensions to the offer are at the discretion of the Board, and may be enacted if the target is not reached.

- VAT registration

As the turnover of the combined schemes is in the region of £23,000 a year and as all the PV are in place it is not intended to register the Society for VAT purposes at this stage.

- Management accounts

The expected transactions of the Society are limited. There will be annual payments for administration, UK Coop membership and insurance; quarterly payments for rent and ad hoc maintenance (£100 per quarter average). There will be an annual run of Community Benefit Fund and share interest payments and corporation tax.

Receipts are scheduled to be quarterly PPA receipt, FITs and RHI receipts.

All transactions could be recorded via the accounting software.

A full audit trail will be maintained.

- Communications & publicity

A launch event will promote the share offer including an official "switch on" by our MP/Local Councillors.

Targeted local messages will be issued via social media outlets such as Facebook and Instagram. Scenthound of Saltaire have been commissioned to orchestrate the campaign, as part of their branding contract. Articles and teasers in the social media feed will include releases about awareness of fuel poverty, alternative energy options, the need for carbon reductions and the establishment of BCE.

Announcements about the share offer will be made in local mosques and other faith buildings organised via the Faith Forum; articles will be run in the local BD5 magazine via the local Telegraph and Argus newspaper and Bradford Community Broadcasting as well as local

email newsletters such as Briefing Bradford, Clean Air Bradford Network, Bradford Environmental Forum, Bradford Council's Backing Bradford e-news, Friends of the Earth newsletter, 30 Chapel St, Bradford CVS Alliance, Bread and Roses, ArtWorks, BEAT, BEES, C-Net, #TogetherBradfordCan and similar.

Additional online presence will be gained via National networks to spread the news of the offer further such as the email newsletters and twitter feeds of : Locality, Community Shares Unit and the Booster programme, Coops UK, Power to Change, Community Energy England, Fit for the Future, Good Energy, Community Matters and the CAF Bank.

- Our key messages are to:
  - Champion and support the adoption of renewable energy systems in the Community and Voluntary Sector.
  - To promote energy efficiency and eradicate fuel poverty.
  - Support and promote the districts moves to Zero Carbon Bradford.

Through informing our supporters about our work and ambitions we hope to develop them into members. The website is key to this as it will carry up to date information of actual and projected power generation and equivalent carbon savings. Articles will detail future and in progress development plans for future share issues. Articles will also carry details of the fuel poverty reduction activities carried out with funding from the Community Benefit Fund. Finally details of AGM and meetings will be available along with a performance dashboard for the Society.

It is intended that the Society will over the coming months and years offer a succession of share issues as local community building renewable schemes are identified and developed. This will provide an opportunity to engage Bradford's residents in a longer-term dialogue and awareness raising about renewable technologies on offer, available energy conservation measures and fuel poverty eradication in the district.

## Installation Plan

The PV arrays are installed, fully operational and receiving FIT payments.

The GSHP scheme is in development and is expected to be online mid-October 2020. Geological reports for the area have been studied and technical design of the scheme is progressing well.

Through the Memorandum of Understanding, BCE could develop the GSHP using Bradford Trident's Core and Facilities teams to implement day to day activity. BCE directors would remain the decision-making body and direct the development. Contracts with installers will be between BCE and the installer, BCE has procurement rules and processes in place. Costs will be closely monitored and regularly reported to the Board. Trident's staff time will not be charged to BCE but will be provided as a gesture of good will to the scheme.

In mid-May three competitive tenders were invited from MCS accredited installers, these submissions were assessed and due diligence checks completed. Through this process an approved installer was selected.

In late May, BCE agreed a detailed installation plan with the chosen MCS accredited installer, exchanged site contacts and agreed project coordination including: responsibility for securing the Coal Authority permit and applying Environment Agency GSHC Good Practice Guidance. Completion of preparation will be July 2020.

Leases and Power Purchase agreements have been drafted for the electrical generation and supply. These will be considered by the Board and contracts will be ready to go by the successful completion of the share offer. Copies of the drafts are available on request.

Draft lease and PPA for the GSHP are available on request.

Once the GSHP system has been fully commissioned (Sept-Oct) and de-snagged a complete hand-over will be conducted including details of all mechanical and electrical components and warranty paperwork, instruction manuals, maintenance contracts. Handover will include plumbing, heating and electrical checks, establishing routine inspection, monitoring programmes and safety procedures.

The installers contract will include a requirement to complete the GSHP RHI registration. The RHI deadline is 31 March 2021, 6 months after the expected commission date.

Progress reports and commissioning day celebrations will be shared with members via the website and social media.

## Operational Planning

### **Managing the Project**

- Future Project Identification and Development

The Board will seek support from Bradford Environment Forum, Bradford Council Transformation Fund, the Climate Action Partnership and Community Action Bradford and District (CABAD) to facilitate introductions to Community organisations. BCE's experts will work with asset owners to identify project goals, develop project options and assess their feasibility. Viable plans will then be developed into future community share issues.

- Maintenance contract

The draft leases and PPA detail maintenance and major repair responsibilities. As potential operators of the host buildings, share-holder and landlord to users of the heat and electricity generated by the Society, it is in Bradford Trident's vested interests to maintain the equipment on behalf of the Society. PA proposal of arrangements to this end have been drafted into the proposed administration agreement between the Society and Bradford Trident.

It is worth noting that Trident's Facilities Management team have commissioned the PV arrays and are acting as the project manager for the GSHP on BCE behest and have a good technical understanding of the systems together with their 20 years of buildings operation experience and practices.

- Meter readings

Quarterly readings are recorded of all power usage in the host buildings. Responsibility for monitoring and reporting performance figures are detailed in the proposed leases and PPAs.

- Performance monitoring

Key Performance Indicators monitored and analysed for the Society are:

- kWh generated (electricity and heat)
- kWh used (electricity and heat)
- Power and heat sales
- FIT returns
- RHI returns
- Carbon avoidance (electricity and heat)
- Costs incurred
- Reserves target achievement
- Community fund use, value, distribution and impact
- New Schemes considered, developed and implemented
- Membership numbers and satisfaction

- Invoicing

Invoices will be issued quarterly and monitored monthly. Swift action will be taken on late payment.

- FIT/RHI payments

A quarterly cycle of FIT and RHI claims will be implemented.

- Ongoing contact with site

Bradford Trident will regularly share pertinent site issues with the Society's Board and members as appropriate as per the Memorandum of Understanding.

- Lease & PPA review

Provision has been included in the proposed PPA and leases for reviews every 5 years. Both draft agreements include provision for annual RPI (electric) and CPI (heat) uplifts.

- De-commissioning

Bradford Trident's sustainability plan includes moving towards zero carbon technologies as swiftly as practicable. As such it is likely that the PV and GSHP equipment will be replaced at the end of its serviceable life.

## **Managing the Organisation**

- Board meetings

The Board will meet quarterly to monitor performance, steer the Society's future developments, administer the Community Fund and plan for member feedback, reports and the AGM.

- AGM

To be held annually at the Park Lane Centre in Bradford.

- Financial management (accounts, payments, VAT, Corporation Tax, FCA returns)  
With support from the Board the secretariat will manage the finances of the Society including making payments, issuing invoices and claims, preparing management accounts and annual accounts and reports, making corporation tax returns and FCA returns.

- Communication with members  
Papers and reports will be published via the Society's website ([www.bcel.org](http://www.bcel.org)). AGM notifications and invites and ballot papers will be issued via email in a timely manner.

- Communication with funders  
BCE is responsible for reporting with regards to the Booster Equity.  
Bradford Trident is responsible for communications and returns to the Booster Community Shares programmes with regards to the Booster grant.

- Engaging with the community

Regular updates and performance data will be available via the Society's website ([www.bcel.org](http://www.bcel.org)) and annually presented at the AGM. Additionally, members will be able to book a viewing of the installations and data records via the Society's secretariat.

- Managing community benefit  
The Board will oversee the management of the Community Benefit Fund on behalf of the membership. The aim of the fund is to eradicate fuel poverty in Bradford district.

- New projects  
Members, Directors and stakeholders will be encouraged to identify and nominate potential new schemes. This will be prioritised following feasibility assessment and task and finish teams convened accordingly. Project diaries will be reported to the Board and plans which meet the Society's ambitions will be publicised amongst members and stakeholders.

- New board members  
The founding Board members and anyone that they co-opt onto the Board will all stand down at the first AGM of the Society. The shareholder members will then elect a new Board of Directors from the membership on a one member, one vote basis, with founding Directors being able to re-stand. At subsequent AGMs one third of the Board shall stand down and again be eligible for re-election, subject to the Rules of the Society, which can be downloaded [www.bcel.org](http://www.bcel.org)

## Glossary

**Applicant** (also You) An applicant for Shares through submission of an Application Form.

**Application Form** The form in this Offer Document or any such other form as the Directors agree.

**Application Monies** The total gross sum realised by this Share Offer.

**Board** The Society's Board of Directors

**Community Fund** A fund endowed by the Society for grants to community projects relating to fuel poverty reduction or promotion of low carbon lifestyles.

**CPI** Consumer Price Index

**DECC** Department of Energy & Climate Change

**BCE** (also the Society, Us, We) Bradford Community Energy Ltd, registered number 8388.

**Family Members** Is as defined in s.253 Companies Act 2006, and includes spouse, children and parents.

**Feed-in Tariff** Incentive for electricity generation introduced on 1st April 2010 under powers from the Energy Act 2008.

**GSHP** Ground Sourced Heat Pump

**kWp** (kilowatt peak) The output power achieved by a solar array under Standard Test Conditions.

**kWh** (kilowatt hour) A unit that measures energy and is equal to the energy that can provide the power of 1 kW for the period of one hour.

**Minimum** The minimum amount to be raised for the Share Offer to proceed, being 60,000.

**MCS** Microgeneration Certification Scheme

**Offer Document** The document describing the share issue

**Offer Period** The period during which the Share Offer will remain open (including any extension) as set out in the timetable in this document.

**Maximum** The optimum amount to be raised from the Share Offer, being £220,000.

**Project** The proposed ownership and operation of solar installations and Ground Source Heat Pumps in Bradford.

**RPI** Retail Price Index

**Rules** The Rules of the Society, available on the Society's website, and on request.

**Share Offer** The offer of Shares in the Society contained in this Offer Document.

**Shares** New Ordinary shares of £1 in the Society, offered at par on the Terms and Conditions and payable in full.

**Site** The location of the solar installations and proposed GSHP.

**Terms and Conditions** The terms and conditions of the Share Offer contained in and constituted by this Offer Document

**Appendices**

1. Memorandum of Understanding (MoU) BCE and BTL
2. Performance figures for first 12 months of the PV operation

1. Memorandum of Understanding (MoU) BCE and BTL

## **Memorandum of Understanding Renewable Energy Assets @ Park Lane and Mayfield Centres, 2020**

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This MoU is an agreement made between the following parties:

**Party A**

<b>Organisation Name</b>	<b>Bradford Community Energy (BCE)</b>
<b>Address</b>	Park Lane Centre, Park Lane Bradford BD5 0JN
<b>Telephone</b>	01274 768062

**Party B**

<b>Organisation Name</b>	<b>Bradford Trident (BTL)</b>
<b>Address</b>	Park Lane Centre, Park Lane Bradford BD5 0JN
<b>Telephone</b>	01274 768062

**1. SUBJECT**

- 1.1. A 20year agreement from 2020 to 2040 to facilitate the development, operation and maintenance of renewable energy assets housed in community setting and specifically the Bradford Trident community centres at Park Lane and Mayfield.
- 1.2. Operation and maintenance of the Photo Voltaic (PV) and Ground Sourced Heat Pump (GSHP) assets.
- 1.3. Purchase of the renewable electricity and heat generated.

**2. COMMITMENTS**

Party A (BCE) commits to:

- 2.1. Purchase PV solar arrays at Park Lane and Mayfield Centres, subject to a successful Community Share Offer, on 1 July 2020.

- 2.2. Commission a GSHP for Park Lane Centre, subject to a successful Community Share Offer, as soon as is practicable and subject to reasonable final quotation. Should the cost increase significantly this may be financed by Bradford Trident subject to the allocation of additional shares.
- 2.3. Lease roof and plant room space for PV and GSHP from 1 July 2020.
- 2.4. Provide electricity and heat at less than market rate.
- 2.5. Pay for the maintain and repair the assets from 1 July 2020.

Party B (BTL) commits to:

- 2.6. Assist in develop of the GSHP scheme, including day to day project administration and all preparatory reports and investigations and providing regular updates to the BCE Board.
- 2.7. Let roof and plant room space for PV and GSHP as per the leases, from 1 July 2020.
- 2.8. Purchase Power from BCE for the duration as per the PPAs, from 1 July 2020.
- 2.9. Organise and oversee the maintain and repair the assets, from 1 July 2020.

### 3. POLICIES

- 3.1. BCE CBS rules.
- 3.2. Bradford Trident internal financial regulations, due diligence and procurement policies.
- 3.3. BCE business plan.
- 3.4. BCE Share Offer.

### 4. AMMENDMENTS

- 4.1. On selection of the GSHP installer, i.e. final quotation.
- 4.2. Conclusion of the Community Share Offer, should it be partially or unsuccessful.
- 4.3. Fifth annual anniversary of the memorandum.

### 5. BREACHES

- 5.1. Representation will be made to the relevant Board.
- 5.2. A working group equally representing both parties, will investigate the issue relating to the digression and make recommendations to resolve it or agree compensation.

The parties affirm to know, understand and agree to all articles of this MoU as negotiated together.

#### PARTY A REPRESENTATIVE

#### PARTY B REPRESENTATIVE

Signature: _____	Signature: _____
Name: _____	Name: _____
Position: _____	Position: _____
Date: _____	Date: _____

[Type text]

[Type text]

Bradford Community Energy BCE

2. Performance figures for first 12 months of the PV operation

Park Lane and Mayfield Centres:

Photo-voltaic solar arrays performance figures.

2019/20

**Mayfield Centre**



Total Installed Capacity: 30.00kW

Declared Net Capacity (kW): 27.05

Estimated Annual Generation (kWh):24,000

**Actual Annual Generation (2019-20): 26,942 kWh 112.3% of estimate**

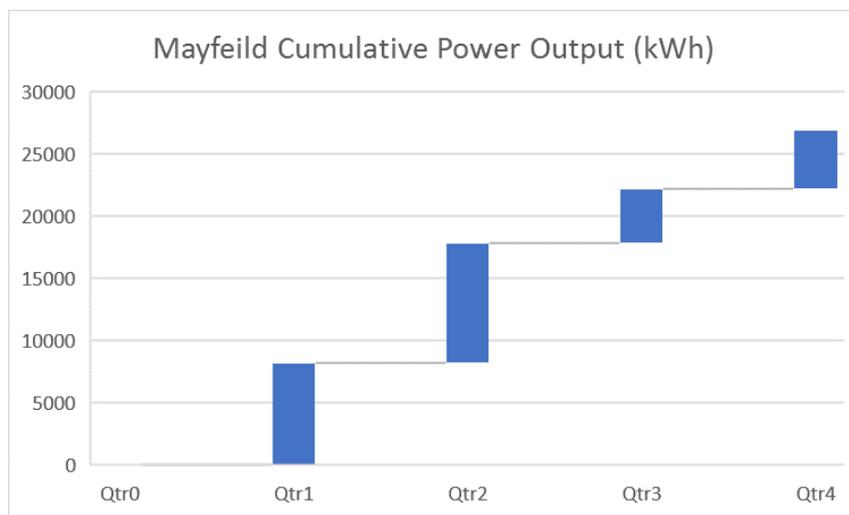
PV is installed on the pitched roofs facing SW and SE.

Due to the systems size the site is automatically assumed to export 50% of the PV output.

PV modules 100 X 300kw

Inverters 1

Orientations 2



### Park Lane Centre



PV Total Installed Capacity: 28.20kW

PV Declared Net Capacity (kW): 27.05

PV Estimated Annual Generation (kWh): 23,462

**Actual Annual Generation (2019-20): 22,123 kWh 94.3% of estimate**

PV is installed on the on the main south facing roof.

Due to the systems size the site is automatically assumed to export 50% of the PV output.

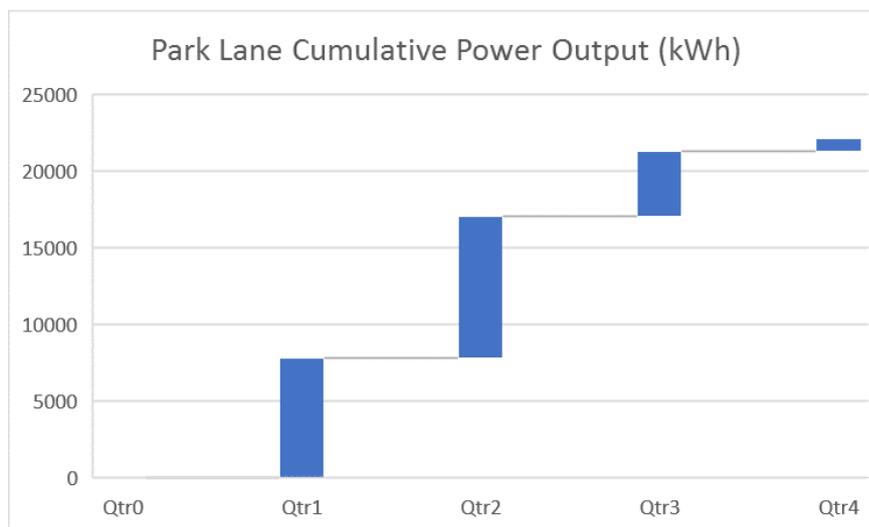
PV modules 94 x 300kW

Inverters 1

Orientations 1

FIT registration from 02/04/2019

Environmental Performance Certificate (EPC) rating B (49)



**Combined first year output has exceeded combined estimated annual output by 1,602kWh representing 3.4% of additional annual kWh of output.**