Wight Community Energy intends to be at the centre of the development of a sustainable, low carbon, economically prosperous Isle of Wight
# Table of Contents

## Main text

- WCE’s Purpose ........................................................................................................... 1
- Isle of Wight socio-economic context ........................................................................ 1
- Community needs ...................................................................................................... 2
- About Wight Community Energy ................................................................................ 3
- WCE Membership and share capital ......................................................................... 4
- WCE Corporate Structure ......................................................................................... 4
- Management and Control .......................................................................................... 5
- Homestead Solar Farm ............................................................................................... 8
- Community Energy Together (CET) ........................................................................... 9
- Market ........................................................................................................................ 10
- SWOT .......................................................................................................................... 11
- Successes to date: WCE Projects ............................................................................. 12
- Communications and influence ............................................................................... 15
- Management and Planning ....................................................................................... 16
- Financial History and Future Projections .................................................................. 18

## Annexes

- Annex 1 Power to Change and Bright Renewables ...................................................... 22
- Annex 2 Partners In CET ........................................................................................... 23
- Annex 3 Societies’ Technical Info ............................................................................. 24
- Annex 4 CET Cash Waterfall .................................................................................... 26
- Annex 5 Homestead Historical Financial Performance ........................................... 28
- Annex 6 Homestead Downside Scenarios ................................................................ 31
- Annex 7 Homestead Financial Forecast ................................................................... 34
- Annex 8 CET Portfolio Financial Forecast ............................................................... 38
- Annex 9 Isle of Wight Electrical Network Constraints ............................................ 40
WCE’s Purpose

Wight Community Energy Limited (WCE) is a community benefit society, first registered in October 2015 (registration number 7234). Formally, the objects of the society are to carry on any business that will maximise the community benefit generated from renewable energy projects developed on the Isle of Wight. The Charitable Purposes listed in the company rules are:

- Advancement of environmental protection or improvement
- Advancement of education
- Advancement of citizenship or community development
- Prevention or relief of poverty

More specifically, the company has adopted the following Social and Environmental Impact Objectives:

- Help alleviate fuel poverty across the Isle of Wight.
- Support energy and biodiversity related education and similar initiatives on the Island and provide financial support to appropriate local organisations.
- Improve biodiversity on our Homestead solar farm and work with Hampshire and IoW Wildlife Trust to upskill volunteers to do biodiversity surveys on the site and improve the ecology.
- To develop new community owned low carbon energy related projects on the island.

Isle of Wight socioeconomic context

The Isle of Wight is a small island (25 miles long), situated off the south coast of England. It is often described as a microcosm of the UK, and is generally considered to be simply a part of the “southeast”. The reality is that it is actually very far from being a piece of Hampshire or West Sussex cut adrift in the sea. Overlaid on these counties, the Island would stretch from Southampton to Portsmouth, or Aldershot to Woking and Guildford. The communities in such areas have little in common save from living in the southeast. In contrast, the 140,000 people living on the Isle of Wight see themselves most definitely as “Islanders”, with a clear, unifying identity. The population is growing slowly, but net migration is highest in the 50 - 64 year age range, and negative for 15 - 29 year olds. As a result, around 30% of the population are over 65, (one of the highest levels in England and Wales), and the proportion is increasing year on year. A higher than average proportion of these older adults have mental health issues and dementia.

The Isle of Wight is a mainly rural landscape and large areas have high levels of ecological designation, including having recently become a UNESCO World Biosphere Reserve. Unfortunately, fine beaches and rural peace and quiet do not create a great deal of employment, except for periods during the holiday season. Consequently, there is a relative dearth of professional/managerial level employment, with salary levels 15% lower than the southeast mainland and, more significantly from a social point of view, hourly wage levels are 20% lower. Unemployment levels are high compared to the southeast and education attainment (as measured by GCSE levels) amongst the lowest in the country. The combination of lack of aspiration, low wage levels and insecure, seasonal employment is a toxic cocktail that blights the Island and contrasts starkly with the carefree holiday island of the “Visit Isle of Wight” promotions, or the sparkling social scene of Cowes Week.
House prices on the Island are lower than for the southeast in general, but since average income levels are also lower, affordability (particularly for young, working people) is little better. The Island has proportionally more detached houses and fewer terraced houses than the southeast, further exacerbating the affordability of housing. The energy efficiency standards of much of the housing are low.

On a more positive note, the Island has a high level of solar PV electricity generation: 80MW of ground mounted, large scale (>1MW) solar PV installations; 7.2MW of small-scale roof mounted systems (typically 3kW each) and 4.5MW of intermediary sized commercial roof top or barn installations, making a total of 91.7MW of solar PV capacity. In addition, there is approximately 5MW of bio-methane generation. The total annual renewable energy generation is around 115GWh. This installed solar capacity represents 0.7kW per resident and the annual generation is equivalent to around 40% of domestic electricity consumption. This represents a much greater contribution from solar energy than for the UK as a whole. The national average capacity is 0.2kW per person and the national annual solar generation is equivalent to 12% of domestic demand.

The potential for onshore wind energy is very limited, despite a reasonable wind resource. It is hard to envisage more than 30MW even under the most favourable scenarios. There is however suitable land available for further ground mounted solar installations and with only about 2,500 domestic solar schemes on a housing stock of some 70,000 dwellings, there is clearly potential to increase that capacity as well. Industrial capacity and brown field sites such as car parks also have potential for expansion.

The rural nature of the economy also suggests that biogas may have further potential along with domestic waste digestion. Longer term, the island has a good tidal energy resource and there are plans for a 30MW scheme off the southern tip of the Island. With such a strong solar (and tidal) resource there is also potential for hydrogen generation, whose future applications and benefits are only now becoming economically viable.

Unfortunately, at present, the electricity network on the Isle of Wight is highly constrained. During sunny periods in the summer, embedded generation exceeds demand and power must be exported at levels that exceed the theoretical limits of the network capacity. Consequently, under the present network structure and control systems, further embedded generation cannot be economically connected.

Community needs

As well as high levels of deprivation, the Island has a substantial carbon footprint. The overall energy efficiency standard of the housing stock is poor, with half the Island lacking access to mains gas, contributing to the unusually high levels of fuel poverty. There is consequently a pressing need to improve the energy efficiency of the housing stock and also assist people in managing their energy use.

There is scant public transport provision and low carbon modes of transport such as cycling are not widely used as an alternative to vehicular transport. The Island can only be accessed from the mainland via diesel powered ferries. The energy use of these ferries is comparable to that of all the private cars on the Island. The electrification of transport is therefore very important - not only as a means to directly reduce the carbon footprint of the Island through lower emission, but also because EVs are batteries on wheels, which can potentially help alleviate the adverse effects of the network constraints.
About Wight Community Energy

Homestead History

In 2015, a company called Mongoose Energy facilitated the purchase of the Homestead solar farm from the original developers, Anesco Limited for a total cost of £5.45 million. This capital cost was financed by a £3.08m bank loan from Close Brothers, a £1.7m loan from the Isle of Wight Council and £700,500 equity from 136 individual members. The asset is held by Wight Community Energy in a subsidiary company, Homestead Community Solar CIC.

During the first two years of operation, the project experienced a few teething problems and a series of disconnections from the electricity grid imposed by SSEN (the local electricity company). These outages were within the scope of the Connection Agreement, but much more severe than envisaged in the project due diligence.

As a direct consequence of these issues, the project was loss making in the first and second years, meaning WCE was unable to provide any returns to community investors, support local causes or raise its profile on the island. However, it was always WCE’s intention to replace the high-cost early-stage finance with lower cost, long-term loans, but the process was delayed by the uncertainty caused by these connection problems. To address this impediment to the refinancing process, WCE built a relationship with SSEN and established regular liaison meetings, which helped to reduce the duration of the outages. WCE also commissioned a study from network consultants, Smarter Grid Solutions (SGS). The study indicated that the project had experienced an exceptionally high level of outages during its first two years of operation, that were unlikely to be repeated as severely in the future. This view was subsequently supported by a further study conducted by Everoze (renewable energy consultants).

Refinancing and senior debt

The SGS report reassured potential refinance providers that the impact of the outages could be managed, and after a market search, WCE selected an organisation called CORE (https://www.corepartners.org.uk/) to provide the new finance. Agreement was reached in early 2019. The concept behind CORE was to deploy a £50 million short term funding provided by their partners (Big Society Capital and Power to Change), to assemble a portfolio of solar PV projects to be taken into community ownership. The portfolio would then be refinanced as a whole, using long term, low-cost institutional money, with the rate being kept low since the lender’s risks would be spread across all the projects in the portfolio (an arrangement called cross-collateralisation).

In late 2019, WCE received the first tranche of the short-term funding from CORE. As security for this funding, CORE took a 50.1% (majority) shareholding in Homestead. With the first phase of lower cost finance in place, and zero connection outages, Homestead started to produce a positive cash flow and was able to pay 3% interest to members in 2019 and make a grant of £7,000 to the Footprint Trust, a fuel poverty charity on the Isle of Wight. In May 2020, CORE increased their lending and WCE was able to repay the loan to the Isle of Wight Council in full, further reducing the level of interest payments and simplifying the financial structure.

Unfortunately, Covid hit just as the portfolio refinance process was starting, and the original target of completing it by June 2020 was not met. In fact, the main (senior) finance was not finalised until the very end of 2021. This long-term debt was provided by global investment company, abrdn (https://www.abrdn.com), at a low rate of interest, with links to the rate of inflation, which works well for solar projects since the power prices are generally index
linked. The total abrdn debt finance secured was £27.5 million, 65% of the total finance requirement averaged across the groups, and around 68% in the case of Wight Community Energy.

**Junior debt**

This institutional (abrdn) funding was never expected to be 100% of the total sum required, so CORE also aimed to raise a tranche of so-called mezzanine finance - money that sits between bank debt and equity in terms of risk exposure and interest rate. Due to upheavals in financial markets in mid/late 2022, this proved to be impossible, leaving a group funding gap of around £13 million.

To bridge this gap, Power to Change and Big Society Capital (now acting as individual entities since the CORE partnership is due to be dissolved once the refinance is completed) have agreed to provide short term (5 year), junior debt finance of £10.5 million to the portfolio partners. The remaining £2.5 million will be raised through an equity fund raise. Like the abrdn loan, the junior debt will be cross-collateralised between the partners. In addition to the senior debt refinance, early in the process CORE also provided equity finance to Wight Community Energy, which we must repay. This will be achieved by the new equity fundraise.

To manage the loan repayment processes and cross-collateral obligations, the groups have formed Community Energy Together Ltd, which is described in more detail in a later section.

As part of the refinance process, WCE gained access to a stream of grant funding provided by Power to Change (see Annex 1). This enabled the company to undertake several energy related projects that are described later.

**Projects and influencing**

While the management of Homestead and the associated refinancing have been the major focus of WCE’s team since 2018, WCE has also secured external grant funding that has resulted in a number of renewable energy related projects and ever-increasing influence on the Isle of Wight. These are described in more detail in later sections.

**WCE Membership and share capital**

In 2016, Wight Community Energy undertook an equity fundraise, securing a total investment of £705,000 provided by 136 members who, on the basis of one member, one vote, control the company. These members have stayed with the company despite difficulties in paying adequate levels of interest. Almost half the members are Isle of Wight residents, with the remainder living elsewhere in the UK.

**WCE Corporate Structure**

Historically, Wight Community Energy Ltd has owned the Homestead solar farm through a 100% owned subsidiary company, Homestead Community Solar CIC. With the advent of the abrdn debt, it has been necessary to intersperse an additional entity, CORE Gemini Ltd between WCE and Homestead. CORE Gemini is the entity through which WCE is part of CET Ltd.
Management and Control

As a community benefit society, WCE is controlled on a “one member, one vote” basis, or more formally in the wording of the rules: “The Society shall be owned and controlled by its Members on a fair and equitable basis.” The full process of meetings and control are set out in the rules, which can be found on our website (https://iowcommunityenergy.org/about-us/reports-accounts/).

Historically, WCE has had a board comprised of a team acutely lacking in diversity. However, since being established, WCE has faced a series of short-term issues and the board have had to focus on addressing these issues and securing the low-cost, long-term finance required to provide a secure future. They have not believed it either appropriate or ethical to seek to bring in new board members during this transition period. Now the refinance is falling into place, WCE are undertaking an extensive promotional campaign, aimed not only at recruiting new investor members but also seeking new board members with more diversity.

This process is already bearing fruit and we are very pleased that Sarah Chatwin, a director of a very well respected Isle of Wight architecture practice and a member of the Board of Directors of Ripple Energy Kirk Hill Cooperative, has joined our team as a non-executive advisor. Dan Ridett has also recently joined us as an independent external director, bringing a strong background in finance and finance raising.

The board members are:

David Bunker  David is a practising Chartered Accountant with a long-term interest in renewables. He has served as Director of a number of Community Energy companies and is also a Director of Windcluster 2000 Ltd, the owner of a windfarm based in Cumbria.

Ray Harrington-Vail (Chair)  Ray has been involved in the environmental activities since the 1980s and has worked in the private, local authority and charitable sector. He took on the challenge of restoring a semi-derelict Georgian cottage 20 years ago, which is now insulated
to a high standard. Some 15 years ago he founded The Footprint Trust charity, which works to reduce the ecological footprint of the Island. The Trust helps some 2,000 people every year live more sustainable lives. They assist over 400 fuel-poor households per year, cutting carbon and energy costs. For his work he was awarded National Energy Action Heat Hero status, and is an honorary Master of The Open University for his work.

**Michael Lilley**  Michael is an elected Independent Isle of Wight and Ryde Town Councillor. He is currently Mayor of Ryde and Vice-Chair of IW Council’s Scrutiny Committee. Michael is Chair of the IW Voluntary Sector, Chair of the Isle of Wight Community Forum and a Trustee of IW Youth Trust. He was a leading activist within the cooperative and social enterprise sector for over 40 years. He is a retired counselling and community psychologist and Chief Executive who founded a successful mental health charity in the midlands and southeast that merged into a National Group. He pioneered innovation in perpetrator programmes to combat domestic violence and psychological therapies in UK in indigenous languages. Michael was instrumental in the IWC declaring a Climate Emergency and developing a Green Island Agenda and climate emergency strategy. He supported the Isle of Wight becoming a UNESCO Biosphere Reserve.

**Colin Palmer**  After leaving university Colin worked in the yacht design and hovercraft industries before moving to wave energy research. Subsequently he established Windcluster Ltd in 1988 and developed and built one of the first commercial wind energy projects in the UK. In 1995 he was the joint founder of Wind Prospect Ltd, a company that developed wind and solar energy projects worldwide. During his career in renewable energy, he has been a director of the British Wind Energy Association and ReGen Southwest as well as a trustee of the Centre for Sustainable Energy in Bristol. More recently he has pursued other interests, in particular finding ways to invest (both time and money) in clean technology projects.

**Laurie Tennant**  Laurie Tennant is a graduate Chartered Electrical Engineer with nearly 40 years’ business management experience. He is also a Director of Bright Renewables, the asset management organisation set up by WCE and several other BenComs to operate and improve their renewable energy generation plants. Laurie established, and for 25 years ran, a business based on the Isle of Wight designing, installing, and maintaining solar plants from domestic to utility scale and small wind and hydro plants. He is a qualified practitioner in the PRINCE2 project management environment. He has been actively involved in community task groups and green initiatives. Now retired, he is a leading member of his local sailing club.

**Dan Ridett**  External independent director Born and raised on the island, Dan has spent the last decade in the crowdfunding and the renewable investment space. He currently runs a bond crowdfunding platform for Downing LLP, an investment management firm that specialises in sustainable investing. He holds an MBA from Cass business school. A water enthusiast, Dan lives in Freshwater with his wife and two year old daughter.

**Sarah Chatwin Advisor**  Sarah is a Chartered Surveyor and director of a multidisciplinary design and construction consultancy. She has over 30 years’ experience in construction, working on infrastructure, factories and housing. She is also a Director for Ripple Energy’s Kirk Hill Windfarm, currently the largest co-operative energy project in Europe. She is leading on the built environment for Together for Mission Zero. She also has director experience on voluntary boards.

WCE’s General Manager is:

**Stephen Cockett**  Stephen spent the first chapter of his working life in aviation, mostly
overseas. Firstly, as an engineer and later administering airline fleet maintenance. He returned to the UK six years ago to raise his family and pursue his real passion in life which is helping to shape a sustainable future. His particular interests in this field are the promotion of electrified transport in all its forms and improving buildings for a net-zero future. To this end he has recently become qualified as a retrofit advisor and is looking forward to taking the net-zero homes message out into the community, alongside managing the growth of WCE in this critical period.

**Homestead Solar Farm**

The Homestead solar farm is located near the village of Shalfleet in the western part of the Isle of Wight. Annex 3 contains a technical summary of the project. The project has passed all its certification and acceptance tests and is operating very efficiently and reliably, but we need to ensure it is well looked after for the long term. To achieve this, we became founder members of Bright Renewables (https://brightrenewables.co.uk/), the UK’s first community owned asset management company. Bright’s broad operational experience means they provide an unrivalled and very cost-efficient service. Homestead is now operated and maintained for WCE with Bright as asset managers and Anesco Ltd (https://anesco.co.uk/) as the Operations and Maintenance contractors.

**Energy yield**

The energy yield from a solar PV farm is determined by six main factors:

- The site availability - the proportion of time that it is available to operate. This is a function of the quality of the components, the operations and maintenance regime and downtime for scheduled and unscheduled maintenance. For Homestead the project availability is 98% to 99%.

- Connection availability - this is a measure of the proportion of time when the project is connected to the network. The study by energy consultants Everoze (https://everoze.com/) concluded that Homestead might be subject to a substantial loss of connection once every seven years, giving a grid availability of 85% in that year. In other years, the availability approaches 99%, so an average of 96.2%.

- Solar panel performance - the efficiency with which the panels convert the incoming solar energy to electricity - a function of the panel technology and quality. The panel at Homestead are Tier 1, the highest quality rating.

- The Performance Ratio - a measure of the quality of a PV plant that is independent of location. It thus shows the proportion of the converted energy that is actually available for export to the grid after deduction of losses (e.g. due to thermal and conduction losses) and of energy consumption for operation. Typically, Homestead operates in the range between 85% and 90%.
• Degradation - over time, the performance of all solar panels drops. Everoze propose that a value of 0.5% per annum is applicable to the Homestead panels.

• Irradiance - the amount of incident solar energy. This value varies from year to year, normally within a band of 4% either way.

**Everoze Performance Prediction**

Based on detailed analysis of the site performance to date, Everoze predicted an annual irradiance level (GTI) of 1,288kWh/sqm, resulting in a yield, before availability losses, of 4.46 GWh in an average year. This is the value that has been used in the financial projections. The figure above shows how the historical output of the project compares to this prediction. With the exception of 2019, the output has been consistently a few percent higher than this prediction.

**Homestead risks**

Since Homestead provides a significant source of revenue for WCE, it is important to understand the risk to that revenue.

<table>
<thead>
<tr>
<th>Risk</th>
<th>Response</th>
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<tbody>
<tr>
<td>Homestead underperforms or there are technical issues</td>
<td>Solar is a relatively reliable technology and Homestead is a well-engineered site with a proven reliability and energy production record. If problems do occur, then the community benefit fund and share dividends would need to be reduced. In a severe situation, if this is not enough, we will be able to call for assistance from the other sites in the portfolio. (See CET section).</td>
</tr>
<tr>
<td>Electricity prices fall</td>
<td>Homestead has PPAs signed until 2026 and a guaranteed export price, linked to inflation until 2036, by that time most of the loans should have been paid off. A significant fall in electricity prices could however affect our income in later years and reduce amounts available for the community fund and share dividends.</td>
</tr>
<tr>
<td>The FIT tariff is withdrawn</td>
<td>This is highly unlikely; the Government has effectively signed a contract to continue FIT payments linked to inflation for schemes already registered.</td>
</tr>
<tr>
<td>Inflation is more, or less, than predicted</td>
<td>Higher inflation would increase our FIT income and export price and would be likely to increase electricity prices post 2036 so is not a risk. Low inflation would lower our income</td>
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but also lower our costs for operations and asset management.

| The landlords want the Homestead site back | The landlords for the Homestead site have signed a 25-year lease with the possibility of a 5-year extension. |
| Planning issues restrict life of Homestead site | The Homestead site has 25-year planning permission in place. It is possible we could apply for an extension to this, but to be conservative, we have not assumed any extension in our financial forecasts. |
| Homestead site clear up costs are prohibitive | It will be WCE’s responsibility to clear the site when the planning permission expires. The Community Benefit Fund is arranged such that sufficient funds are held back to cover any site clear up costs. These are expected to be low as there should be significant recycle value in the materials to be removed. |

**Community Energy Together (CET)**

As a result of the portfolio approach to the refinancing, Homestead is now part of a portfolio of eight UK solar farms owned by five community groups. We have established a company called Community Energy Together (CET Ltd) as the umbrella organisation to manage the groups’ cross collateralised debt arrangements while the shared debt finance remains in place, (for about 13 years.) The portfolio of eight solar farms will increase the capacity of community owned solar energy in England and Wales by about 20%. Together these assets will generate circa £20 M of surplus funds, to be directed by the societies over the project lifetimes toward charitable and non-charitable local projects and to the development of new community owned renewable energy projects. The running costs of the societies directing these funds will also be covered by this surplus. The five societies are Wight Community Energy, Kent Community Energy, Yealm Community Energy, Shropshire and Telford Community Energy and Gower Power. Their details are given in Annexes 2 and 3.

The reduced cost of capital resulting from the cross collateral debt arrangements of CET will enable each solar farm to generate enhanced levels of community benefit funds for many years to come, compared with a standalone funding, while also sharing risk as a group. This is because the cross collateral debt finance has a lower interest rate than the traditional bank financing of community owned solar. The interest payments are linked to inflation, providing a hedge against changing revenues since most of the asset revenues are also linked to inflation. In the unlikely event there is a problem with one asset, that society will not go into 'lock up' but will be supported by the other societies in CET. The process by which the payments will be managed is described in Annex 4.

CET is owned collectively by the five asset owning societies, with each society providing one CET director. As community partners, we are committed to working together in good faith through CET for the good of our communities. We are also committed to complying with the shared loan obligations whilst servicing the cross collaterally raised debt, working as a group to ensure we reach our collective target of £2.5M through share offer raises. If any society raises more than its target, it will lend to other societies in the group as required, to ensure the collective target is achieved. If this is not reached by the closing date, the deadline could
be extended.

As a group, we are also taking the junior loan from Power to Change/Big Society Capital at the point of transaction. Once the collective group target of £2.5M has been met (with or without the need for inter community loans), any further share offer raise will be directed to reduce the junior loan size and thereby increase the Community Benefit Funds we can generate. The projected financial performance of the portfolio is shown in Annex 5.

All CET assets will be managed by Bright Renewables, providing economies of scale. Bright Renewables is the UK’s first fully community owned asset management company. It manages the UK’s largest proportion of community owned renewable assets, with more than 83MW of generation across 42 projects. (For more details, see Annex 1)

The eight solar sites in the alliance will collectively save an estimated 317,136 tonnes of CO2 per year in their lifetimes while supplying the equivalent of 12,745 homes.

CET addresses the following UN Sustainable Development Goals:

- Affordable and Clean Energy (Goal 7)
- Industry, Innovation and Infrastructure (Goal 9)
- Sustainable Cities and Communities (Goal 11)
- Responsible Consumption and Production (Goal 12)
- Climate Action (Goal 13)
- Life on Land (Goal 15)

**Market**

Wight Community Energy operates in three distinctly different markets:

- The sale of the electricity produced by its main asset, the Homestead solar park
- Equity raising
- New project development and accessing grant funding

**Electricity Sales**

The Homestead solar farm operates under the UK Government’s renewable energy support scheme called the Feed in Tariff (FIT - see https://www.ofgem.gov.uk/environmental-programmes/fit/about-fit-scheme). The FIT scheme pays generators a premium for the generation of certified green power. In the case of WCE, this support runs for 20 years from the date of commissioning and the price paid is inflation (RPI) linked. For the period April 2021 to March 2022 the FIT payment was 7.59p/kWh.

The FIT payments are for the “greens” of the power and additional payments are made for the actual energy that is exported. The generator can elect to receive a standard export tariff (5.99p/kWh for the 2021/22 period) or to sell the power on the open market through Power Purchase Agreements, typically at 6-7p/kWh.

This structure means that if Homestead opts for FIT payments plus export tariff, the total income is, subject to assumptions about inflation, predictable for the next 20 years or more. In recent years the open market PPA rates have been higher than the export tariff, so the project has received additional income by opting for that contract structure.

Consequently, in a conventional sense, WCE does not have to compete in the market for its product - barring dramatic and unprecedented changes in government policy, it is guaranteed to be able to sell all it can produce, at a price it can predict.
Equity raising

WCE will be participating in the market for social investment. This market is complex and evolving but is characterised by investors who seek both financial and social returns on their investments. An exemplar organisation in the space is Triodos Bank (https://www.triodos.co.uk), and a selection of others include Energy4All (https://energy4all.co.uk/), Bath and West Community Energy (https://www.bwce.coop/), Ripple (https://rippleenergy.com/) and investment platforms such as Ethex (https://www.ethex.org.uk/).

Anecdotally, it appears that there is considerable demand for investments of this nature and relatively safe, long term cash generating assets such as solar farms are appealing.

New projects and grant funding

The Homestead solar farm is the primary source of income for Wight Community Energy, but, as described in more detail in the finance section, the project has been heavily indebted, which limited the surplus cash, thus restricting any other activities that WCE may wish to undertake. Accordingly, WCE started to pursue sources of grant funding as a route to generating income, access to new projects and potential new business opportunities.

This is a crowded market and one where success rates can be low.

SWOT

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<th>Strengths</th>
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<tr>
<td>• Strong experienced board.</td>
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<td>• Routine management of the solar farm well established and effective.</td>
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<tr>
<td>• Grants from Power to Change to finance feasibility studies of projects.</td>
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<tr>
<td>• Strong links with like minded groups on the Isle of Wight</td>
</tr>
<tr>
<td>• Strong cash flow as a result of refinance</td>
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<tr>
<td>• Part of the national CET grouping</td>
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<table>
<thead>
<tr>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>• Historically tight cash flow due to high debt levels.</td>
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<tr>
<td>• Lack of diversity in board members</td>
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<tr>
<td>• Limited human resources</td>
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<table>
<thead>
<tr>
<th>Opportunities</th>
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<tbody>
<tr>
<td>• The climate on the Isle of Wight is one of the best in the UK for solar generation of electricity.</td>
</tr>
<tr>
<td>• Having the majority of the board living on the Isle of Wight has major advantages through local networking.</td>
</tr>
<tr>
<td>• An Isle of Wight Council very supportive of renewable energy and environmental issues.</td>
</tr>
</tbody>
</table>
• Potential upgrade of local electricity network.

**Threats**

• SSEN curtailment of generation.
• Limited opportunity to develop new solar facilities on the Isle of Wight due to connection cost.

**Successes to date: WCE Projects**

Unlike most other community energy organisations, WCE has been unable to develop new generation projects, due to the constraints of the electrical network on the Island. As a result of these restrictions, WCE has investigated other possibilities, focussing on projects that will have short and longer term impacts on the constraints issue. WCE board members have secured grant funding for several such projects.

Community benefit, in the form of cash grants that can be distributed within the community, has been extremely limited due to the financial issues described earlier. This will change dramatically in the future, now that the new finance is in place.

WCE secured two grants (total value circa £70,000) from RCEF (https://www.gov.uk/guidance/rural-community-energy-fund) to investigate the potential for solar generation to power the trains on the Island - the Riding Sunbeams Project and to investigate the production and sale of hydrogen on the Island, the Hydrogen Project. Subsequently, WCE was able to access a £250,000 fund through Power to Change and has used this funding to develop a range of new projects. These activities are listed below.

**RCEF - funded Projects**

**Riding Sunbeams**

Powering the railways with renewable energy has huge opportunities to establish resilient community energy businesses in a post subsidy environment. Network Rail is the single biggest unregulated consumer of electricity in the UK, procuring around 3.2TWh of electricity centrally for the entire rail industry each year. This is equivalent to roughly 1% of the UK’s total electricity demand. The Office of Road and Rail (ORR) has placed regulated targets upon Network Rail to reduce CO2, from its operations by 25% by 2024.

On the Isle of Wight there is an opportunity to investigate the feasibility of providing renewable electricity to both the railway and the Sandown waste water treatment works.

The proposed project was a 1-3MW solar PV site at the Southern Water waste water treatment works Sandown, Isle of Wight with a direct wire from the solar farm to supply electricity to Southern Water and the railway. Both South Western Railway and Southern Water gave permission for the study to go ahead, with Southern Water committing to at least 50% of the installation to go into community ownership if it was feasible.

The project was managed by Community Energy South in partnership with Wight Community Energy. For a variety of technical and commercial reasons the project proved to be impractical, but it created a link between WCE and Southern Water that has the potential to lead to future projects.
Hydrogen for the Isle of Wight

A project in Orkney (https://hydime.co.uk/) demonstrated that the introduction of hydrogen gas to marine diesel engines increases efficiency and reduces emissions, both firm targets of the Island of Wight ferry operators. The fleets are all diesel-fuelled and make a significant contribution to the carbon footprint, as well as producing local particulate emissions.

The project investigated the practicality and economic feasibility of using the 4MW community owned Homestead solar array to generate hydrogen, as a substitute for fossil fuels in transport applications on the Isle of Wight. Having identified the preferred production technology, the project entered discussions with the ferry and bus companies on the Island and investigated:

- Potential for use on the rail network, commercial vehicles, fishing fleet and pleasure yachts.
- Storage and distribution technologies
- Safety requirements, particularly for public transport markets
- The economic impact of using power from the 4MW array and any regulatory impacts

The project assessed the economic viability of hydrogen in these Island markets and developed potential business models to serve them. It identified a number of technically feasible options, but at the time the cost of hydrogen generating plant was prohibitive. This is falling rapidly and the WCE plans to revisit opportunity in the coming years.

Power to Change funded projects

Ricardo Mainland Inter-connector Capacity Assessment

Ricardo were commissioned to undertake a review of the reasons for the constraints on the Island network and to propose possible solutions. The results have supported WCE’s negotiations with SSEN, which have yet to open up new capacity, but show promise of achieving that in the longer term. It also identified the Cowes Power Station as a major factor in setting the constraint levels on the Island since its connection occupies one of the three connection cables to the mainland.

The project found that there are several different factors that are embedded into SSEN’s network modelling techniques and assumptions, which determine the allocation and curtailment of generation export on the Isle of Wight distribution network.

SSEN’s planning and connection processes are focused on ensuring compliance with their licence conditions and these require them to maintain defined levels of network security for current and future conditions. This means that under minimum and maximum demand conditions, the interconnection to the UK mainland is now at its thermal capacity limit. This happens under low demand conditions in the Summer because at this time output from renewable generation on the island is high.

The existing Automatic Network Management (ANM) set up is designed to allocate capacity dynamically to generators as it becomes available. A benefit of this approach is that generators avoid potentially high network reinforcement costs. SSEN have recognised that the cost to connect to the ANM platform is a major barrier, which could explain the very low uptake of a non-firm connection agreements mediated by the ANM system since it went live in 2017. To make a connection mediated by the ANM system more attractive SSEN have made a significant reduction in cost to generators.
Isle EV and Going Electric

One potential means of offsetting the effects of the constraints on the network is the inclusion of storage, in order to reduce the severity of the export peaks. Electric vehicles (EVs) are ‘batteries on wheels’ so are a potential means of achieving this through the adoption of Vehicle-to-Grid (V2G) technologies and time-of-day charging tariffs. However, first a sizeable fleet of EVs is required, so WCE have been promoting the uptake of EVs on the Island.

WCE established the ‘Isle EV’ brand, initially as a Facebook group to promote the use of electric vehicles on the Island. Isle EV uses social media and social events to that end, and in 2022 organised and promoted a public event called ‘Going Electric’. Almost 1,000 people attended the event, and it received widespread media coverage. July 2023 will see the next ‘Going Electric’, mainly focussed on the electrification of transport, but also offering battery powered consumer goods and related technologies as well as specialist lectures.

E-Cargo Bikes

WCE supported a project to expand the use of an e-cargo bike delivery service. It demonstrated the delivery capabilities of electric cargo bikes to Isle of Wight businesses, organisations and the general public through demonstration events and a delivery pilot project run with project partners People Powered CIC.

Smart Water Heating

The constraints on the Island network are set by conditions that occur in the summer months, when demand is low and export from solar generation is high. Consequently, one possible means of reducing the severity of the constraint is to increase demand during daylight hours in the summer months. This period coincides with the tourist season, during which the Island receives two million visitors.

WCE developed a research project to test the hypothesis that there is an increase in water heating demand in the summer caused by the influx of tourists. The project is working with Mixergy, manufacturers of smart water heating systems, studying the feasibility and value of smart grid enabled water heating at Island hotels.

Other projects

Drive 2X

WCE was approached by Future Isle of Wight (FIOW) to partner with them in a large, multi-regional study into the potential for Vehicle-to-Everything Communications (V2X) services. The European funded DriVe2X project’s overall objective is to contribute to accelerate the uptake of V2X by 1) deepening the state-of-the-art knowledge on this nascent field; 2) developing new V2X technologies and solutions suitable to mass EV deployment; and 3) producing policy tools and insights in support of relevant decision makers.

FIOW and WCE are undertaking a demonstration part of the project on the Isle of Wight. It will explore the impact of Vehicle-to-Grid (V2BG) solutions in the tourism accommodation sector, using EVs as the mobile battery. The demonstrator will work with a mix of audience types – commercial, Island visitors and residents from within the local community. The
demonstrator will also test out grid tolerance of V2G in a grid constrained area. It will also link in with the WCE smart water heating project by investigating green hot water powered by DriVe2X - storing surplus energy in EV batteries.

**Domestic Retrofit**

In addition to being a member of the Isle of Wight Retrofit Hub, WCE aims to develop projects that increase the adoption of more easily accessible housing improvements such as loft insulation and draught proofing on the Island.

**Communications and influence**

WCE has established a range of communication channels. Members receive regular newsletter updates via email and more general information is posted on a Facebook page (https://www.facebook.com/WightCommunityEnergy/). We are less active on LinkedIn (https://www.linkedin.com/company/10489206).

With funding help from Power to Change, WCE established the Isle EV brand, as a means of promoting the uptake of EVs on the Island. The Facebook group (https://www.facebook.com/groups/1211549025995422/) is very active in debating the pros and cons of EVs and the challenges of finding chargers on the Island.

To provide a focus for this group, and to access a wider audience, in 2022 WCE held an “EV day” called Going Electric, in part inspired by the well established Fully Charged events. It brought in almost 1,000 visitors and was attended by all the Island car dealerships as well as many other organisations related to the Going Electric theme (https://iowcommunityenergy.org/projects/power-to-change/going-electric/). Going Electric 2023 is being organised and will be bigger and better.

Our directors make no secret of their contact details and we are increasingly asked for advice on things like heat pumps and domestic solar. As an independent charitable organisation, with a well-respected and knowledgeable staff, WCE can act as an “honest broker”, giving impartial advice on these matters and referring people to reputable commercial suppliers or other specialists as appropriate.

**Mission Zero Hubs**

In July 2019 the Isle of Wight Council declared a climate emergency, with an aim to achieve net zero emissions across the Island by 2030. One of the initiatives following from the document was the establishment of Mission Zero Hubs, to focus attention and action on different aspects of the challenge. WCE was asked to join the Energy and Retrofit Hubs, cementing its position as a recognised Island authority on renewable energy and energy use matters.

**Digital Twin Demonstrator (IOW) - Energy Systems**

The Isle of Wight has been selected to help support the UK Government’s National Digital Programme and WCE is working in partnership on this project with IoW Council and the Retrofit Hub.

**Regen Isle of Wight Network Investment Study**

In part because of the information provided by the Ricardo study, WCE has been a member of the advisory board for a study commissioned by SSEN to make the case for additional investment in the Island electricity network. The study has been undertaken by Regen and is due for completion during April 2023. It will then be used by SSEN to make a submission to
OFGEM seeking agreement to make substantial investment in the Island network, which could ultimately enable an additional 150MW or more of generation capacity.

**SSEN and Isle of Wight Stakeholders**

Following on from WCE’s early interactions with SSEN, a formal liaison group was established, bringing together all the major interested parties on the Isle of Wight. It was this group that worked with SSEN to commission the Regen study.

**General Manager Energy Efficiency Qualifications**

WCE has supported Stephen Cockett in obtaining energy related qualifications, which helps him in his local activities and longer-term career ambitions.

**Talks**

WCE staff have given many energy related talks to non-specialist groups such as sailing clubs, the Royal Aeronautic Society as well as to Together for Mission Zero, Going Electric 2022, Green Party and Isle of Wight Council Cabinet.

**Management and Planning**

**Historical management objectives**

As a community benefit society, the primary aim of Wight Community Energy is to maximise the community benefit payments (with a focus on reducing fuel poverty), and then pay members a fair return on their investments. To do this, the company must focus on maximising the cash generation, which, as demonstrated in the finance section, has been no easy task.

The historical management priorities have been clear:

- Maximise the site output of the Homestead solar project through efficient O&M and asset management contracts
- Minimise the impact of network outages
- Refinance the Homestead project with lower cost debt

Working with Bright Renewables as asset managers, we have looked at all aspects of the site operating costs and the opportunities for maximising output. This is an on-going task, but the hard work has been done to keep costs at the lowest possible level.

Working with SSEN, we have reduced the level of network outages from weeks to a matter of hours per year. the site has run at 99% availability in recent years.

Working with CORE, we have secured very low-cost debt finance through global investment company, abrdn, to be repaid over a period of 13 years.

**Future management objectives**

With the initial management objectives achieved, we can now turn our focus to the future.

- Expand the board and increase the diversity of its members
- Work with others such as the Isle of Wight Council and Future Isle of Wight to reduce fuel poverty and help the Island become self-sufficient for energy.
- Develop new income streams and diversify activities
• Plan for the time when WCE has access to substantial surplus funds that can be allocated to community benefit
• Develop and implement a process for the disbursement and monitoring of community funds

Future Plans
The main activities of WCE over the next four years will be as set out below. Until 2025/6 cash will be limited as the focus will be on repaying the junior loan. The period 2023-2025 will therefore be used to continue existing activities and lay the ground for increasingly ambitious community support from 2026 onwards. Since this will be a process of understanding and responding to local needs, it is not possible to predict specific activities, but the focus will remain on reducing fuel poverty and supporting moves to a net zero Island.

2023
• Manage existing Power to Change funded projects, especially making a success of Going Electric 2023
• With the CET group, complete the negotiation of the junior loan
• Work with the CET group, to take over the administration of the abrdn and junior loans
• Complete rebranding and relaunch as integral part of fundraise
• Undertake an equity fundraise - July until September
• Diversify and expand the WCE board
• Seek new grant funding that will enable us to extend the General Manager’s employment contract. Aim for retrofit related project(s) if possible
• Investigate potential for commercial roof mounted solar projects
• Investigate potential for establishing Solar Together or similar on the Island
• Develop and offer talks to local non specialist groups - eg Women’s Institute, sailing clubs, car clubs, lunch clubs etc, focussing on helping people to reduce their energy bills

2024
• Maintain and strengthen collaborations with like-minded Isle of Wight groups, including: Footprint Trust, Mission Zero Hubs, Future Isle of Wight, Together for Mission Zero
• Develop at least one jointly funded project with them
• Maintain liaison with SSEN and sustain pressure to invest in strengthening the Island’s electricity network
• Organise Going Electric 2024
• Work with CET group to develop a bond issue or similar to replace the junior loan
• Start development of commercial rooftop solar if technically feasible
• Deliver talks planned and offered in 2023
• Formalise and expand technical energy advice services
• Highlight the role of Cowes Power Station in restricting available generation capacity on the Island and campaign for change or shared access

2025
• Detailed planning of fund raise to replace junior debt
• Establish grant management group to design community benefits programme
• Start to plan fuel poverty related projects through targeted grant funding to external groups such as Footprint Trust and FLOW
• Going Electric 2025 with a focus on water transport
• Maintain delivery of talks and related outreach activities
• Become the go-to organisation for technical energy advice on the Isle of Wight and find ways to monetise this service
• Revisit the potential for hydrogen in transport and battery storage

2026 onwards
• Launch fund raise to replace junior debt
• Finalise programme of grant funding targeted at local needs.
• Progressively ramp up financial support for local community
• Finance new renewable generation projects if network constraints allow

On or before the end of 2028 (depending on the repayment of the junior debt), annual community payments will become substantial and will require careful management to avoid wastage and to identify where there is sufficient local capacity to deploy the funds effectively.

Financial History and Future Projections

As noted in earlier sections, the early years of Wight Community Energy were financially challenging, but since 2018/9 the situation has improved. Aside from grant income, WCE’s sole source of funding is the money that is paid to it from the surplus of the Homestead project. Since the start of the refinance process in 2019, this has been fixed at £2k/MW per year (inflation linked), so around £9k in recent years. As the most recent (December 2022) accounts show, the basic administration costs of WCE were almost £12,000, resulting in a shortfall of £3,000. This has been funded from management charges levied on the various grant funded projects that WCE has undertaken.

Now that the refinance is close to completion, the expectation of its terms is that a minimum of £3k/MW will be transferred up to WCE, unless the CET group as a whole is unable to meet the payments due on the senior and junior loans. This means that, in future, the transfer will cover the basic operating costs of WCE, and any surplus generated through grant funding, or for example the Going Electric event, can be deployed for community benefit.

In addition to this basic level of income, if the CET portfolio performs well in the early years, the junior loan agreement contains provision for an overpayment to be made, in which case WCE will have additional funds it can devote to community benefit. As the attached cash flow projections show (see Annex 5 Homestead Historic performance and Annex 6
Downside Scenarios), the Homestead project is fundamentally financially robust and should be able to repay its junior loan before the end of 2027. The project will then be generating an annual cash surplus in the region of £250,000, which, subject to CET having serviced the abrdn loan, will be available for community benefit purposes. This is shown in the Homestead Financial Forecast (Annex 7) and the broader context of the financial forecast for complete portfolio is shown in Annex 8.

In summary, with the refinance in place at the end of 2023, Wight Community Energy is entering a new phase of activities and influence on the Isle of Wight. The combination of lower cost finance and higher power prices will mean that much more surplus will be generated than in previous years. Initially, while the junior loan is in place, WCE will have to devote most of this surplus to repayments, but this will be complete by the end of 2026. From that date onwards, WCE will have more control over the surpluses it generates and will be able to start making significant financial impacts within the Isle of Wight community.
Annex 1

Power to Change and Bright Renewables

Power to Change’s Next Generation Programme

CORE Partners formed a partnership with Power to Change (PtC)’s Next Generation Programme. The Next Generation Programme is delivered by the Centre for Sustainable Energy, who are an independent national charity providing advice, training and support to sustainable energy projects.

The programme is supported by a consortium of industry experts including Everoze Partners, Low Carbon Hub, Cooperatives UK, Cooperative Futures, Social and Sustainable Capital, and SFW Communications. Further information on the Next Generation Programme can be found here. https://www.next-generation.org.uk/about

The Next Generation Programme seeks to build the expertise and capacity of community energy businesses. PtC has provided grants and services of over £1m to CORE community group and CORE portfolio companies since 2018. The programme supported the establishment and development of the community businesses working with CORE. This included activities to enhance the impact of the solar assets, such as biodiversity master planning, natural capital assessments and exploration of opportunities for battery energy storage, as well as to develop new net zero community business opportunities.

The Next Generation Programme aims to equip local community organisations with the knowledge, skills and opportunities to take on the long-term ownership of generating assets within the CORE portfolio and also to develop new innovative long-term projects that deliver against local needs and priorities.

Bright Renewables, asset manager

CORE’s investment in Bright Renewables in November 2018, accompanied by a PtC grant, has enabled the UK’s first fully community owned asset management company to develop and strengthen its base of knowledge and expertise quickly and deliver best-in-class asset management services. BR is the asset manager for all CORE project companies.

Bright Renewables is a not-for-profit social enterprise that provides a suite of specialist services including Operational Asset management (incl. contract management of third-party services); Project Optimisation (incl. PPA procurement and negotiation); Investor Relations (incl. management of investor registries); Finance and accounting (incl. management of project finances) and Regulatory Compliance (incl. compliance with Ofgem). Bright Renewables currently manages 83MWp of renewable energy assets. As of 2021, the total UK Community Energy Solar PV community energy market was 206MWp.
# Annex 2

## Partners In CET

<table>
<thead>
<tr>
<th>Society</th>
<th>Solar assets to be acquired</th>
<th>CORE acquisition date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yealm Community Energy (YCE)</td>
<td>Newton Downs, 5MW, Creacombe 4.4MW, Marlands 2.9MW, all in South Devon</td>
<td>2017</td>
<td>YCE is a Devon-based Community Benefit Society, established in July 2015.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2019</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2020</td>
<td></td>
</tr>
<tr>
<td>Kent Community Energy (KCE)</td>
<td>Orchard 2, 5MW, near Sittingbourne</td>
<td>2018</td>
<td>KCE is a Community Benefit Society based in Kent, established in 2016.</td>
</tr>
<tr>
<td>Wight Community Energy (WCE)</td>
<td>Homestead, 3.9MW, near Newport, the Isle of Wight</td>
<td>2019</td>
<td>WCE is a Community Benefit Society on the Isle of Wight, established in 2015. WCE has managed the Homestead site since 2016 and has carried out a successful previous share raise for £700,000.</td>
</tr>
<tr>
<td>Shropshire &amp; Telford Community Energy (STCE)</td>
<td>Twemlows and Twemlows 2, 10MW, near Whitchurch, Shropshire</td>
<td>2019</td>
<td>STCE is a Community Benefit Society in Shropshire.</td>
</tr>
<tr>
<td>Gower Power</td>
<td>Brynwhilach, 4.99 MW, Llangyfelach near Swansea.</td>
<td>2019</td>
<td>Gower Power was originally set up as a Company Ltd by Guarantee in 2013, and converted to a community benefit society in 2023</td>
</tr>
</tbody>
</table>

https://www.yealmenergy.co.uk/
https://kentcommunityenergy.org/
https://iowcommunityenergy.org/
https://stcenergy.org.uk/
https://www.gowerpower.coop/
## Annex 3

### Societies' Technical Info

### Newton Downs, Creacombe and Marlands (Yealm)

<table>
<thead>
<tr>
<th>Solar Array Technical Info:</th>
<th>Newton Downs</th>
<th>Creacombe</th>
<th>Marlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated capacity</td>
<td>4.89MWp</td>
<td>4.4MWp</td>
<td>2.9MW</td>
</tr>
<tr>
<td>Net installed capacity</td>
<td></td>
<td></td>
<td>12.28 MW</td>
</tr>
<tr>
<td>Commissioning date</td>
<td>January 2018</td>
<td>Jan 2020</td>
<td>January 2020</td>
</tr>
<tr>
<td>Engineering, procurement and construction contractor</td>
<td>Solarcentury</td>
<td>Goldbeck Solar</td>
<td>Goldbeck Solar</td>
</tr>
<tr>
<td>O&amp;M service provider</td>
<td>PSH</td>
<td>Stern</td>
<td>Stern</td>
</tr>
<tr>
<td>Asset manager</td>
<td></td>
<td>Bright Renewables</td>
<td></td>
</tr>
<tr>
<td>Lease contract expiry</td>
<td>October 2046</td>
<td>August 2050</td>
<td></td>
</tr>
<tr>
<td>Subsidy regime</td>
<td>ROC</td>
<td>FiT</td>
<td>None</td>
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### Twemlows 1 & 2 (STCE)

<table>
<thead>
<tr>
<th>Twemlows 1 &amp; 2 Solar Array Technical Info:</th>
<th>Twemlows 1</th>
<th>Twemlows 2</th>
</tr>
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<tbody>
<tr>
<td>Rated capacity</td>
<td>4.99MWp</td>
<td>4.99MWp</td>
</tr>
<tr>
<td>Export capacity</td>
<td></td>
<td>8160 kVA</td>
</tr>
<tr>
<td>Commissioning date</td>
<td>October 2015</td>
<td>June 2016</td>
</tr>
<tr>
<td>Engineering, Procurement and Construction Contractor</td>
<td>Vogt Solar Limited</td>
<td></td>
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<tr>
<td>O&amp;M Service Provider</td>
<td>PSH</td>
<td></td>
</tr>
<tr>
<td>Asset manager</td>
<td>Bright Renewables</td>
<td></td>
</tr>
<tr>
<td>Lease contract expiry</td>
<td>February 2036, option to extend by 5 years</td>
<td></td>
</tr>
<tr>
<td>Subsidy regime</td>
<td>FiT</td>
<td></td>
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</table>

### Homestead (Wight)

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<thead>
<tr>
<th>Homestead Solar Array Technical Info:</th>
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</thead>
<tbody>
<tr>
<td>Rated capacity</td>
<td>3.95MWp</td>
</tr>
<tr>
<td>Export capacity</td>
<td>3,599kVa</td>
</tr>
<tr>
<td>Commissioning date</td>
<td>December 2015</td>
</tr>
<tr>
<td>Engineering, Procurement and Construction Contractor</td>
<td>Anesco Limited</td>
</tr>
<tr>
<td>O&amp;M Service Provider</td>
<td>Anesco</td>
</tr>
<tr>
<td>Asset manager</td>
<td>Bright Renewables</td>
</tr>
<tr>
<td>Lease contract expiry</td>
<td>August 2040</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Subsidy regime</td>
<td>FiT</td>
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</tbody>
</table>

**Orchard 2 (Kent)**

<table>
<thead>
<tr>
<th>Orchard 2 Solar Array Technical Info:</th>
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</tr>
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<tbody>
<tr>
<td>Rated capacity</td>
<td>5.0MWp</td>
</tr>
<tr>
<td>Export capacity</td>
<td>4,500kVA</td>
</tr>
<tr>
<td>Commissioning date</td>
<td>May 2016</td>
</tr>
<tr>
<td>Engineering, Procurement and</td>
<td>OPDE</td>
</tr>
<tr>
<td>Construction Contractor</td>
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<td>O&amp;M Service Provider</td>
<td>PSH</td>
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<td>Asset manager</td>
<td>Bright Renewables</td>
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<tr>
<td>Lease contract expiry</td>
<td>April 2042</td>
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<td>Subsidy regime</td>
<td>FiT</td>
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**Brynwhilach (Gower)**

<table>
<thead>
<tr>
<th>Brynwhilach Solar Array Technical Info:</th>
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<tbody>
<tr>
<td>Rated capacity</td>
<td>4.99MWp</td>
</tr>
<tr>
<td>Export capacity</td>
<td>4,295 kVA</td>
</tr>
<tr>
<td>Commissioning date</td>
<td>March 2017</td>
</tr>
<tr>
<td>Engineering, Procurement and</td>
<td>Goldbeck Solar Limited</td>
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<tr>
<td>Construction Contractor</td>
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<tr>
<td>O&amp;M Service Provider</td>
<td>PSH</td>
</tr>
<tr>
<td>Asset manager</td>
<td>Bright Renewables</td>
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<tr>
<td>Lease contract expiry</td>
<td>December 2046</td>
</tr>
<tr>
<td>Subsidy regime</td>
<td>ROC</td>
</tr>
</tbody>
</table>
Annex 4

CET Cash Waterfall

There are several operating and financial costs to be paid by Homestead, Wight Community Energy and the wider CET Community Groups in an agreed order (a cash waterfall). This is typical of renewable energy projects of this nature.

Please note that the payments in the cash waterfall set out the required order in which certain costs and financing obligations (e.g. loan repayments) must be met from revenues generated by the project. Shareholders will only receive repayments of their capital after the junior loan is repaid or refinanced.

Simplified cash waterfall up to Q3 2028 (Year 5, end of the junior loan term):

1. Homestead operating costs.
2. Working capital buffer maintained at a maximum of £30,000.
3. CPIL operating costs.
4. Abrdn senior debt service.
5. Payments into reserve accounts: abrdn loan requires a portfolio debt service reserve account (DSRA) and maintenance reserve account (MRA).
6. First community benefit payment: fixed payment of £2k/MW (+RPI) made by the asset to Wight Community Energy (via CORE Gemini).
7. CPIL w/c buffer of £40,000 and reasonable buffer for next abrdn debt service.
8. Additional community benefit payment – a further £1k/MW (+RPI) is released to Wight Community Energy.
9. CET Operating costs.
10. Junior BSC/PTC debt service – cash interest is paid.
11. CET working capital buffer of £10,000
12. Community equity (interest) – once the junior BSC/PTC debt has been serviced, community interest is paid. (Community share capital repayments begin only once the junior BSC/PTC loan has been repaid.)
13. All remaining funds are used to pay down the BSC/PTC loan capital (and for the final capital payment the accrued interest).

Following full repayment of the Junior loan, retained funds will be returned to the ProjectCos to be distributed at the discretion of the Community Group.

Simplified cash waterfall from Q4 2028 (Year 6, following end of the BSC/PTC loan term):

1. Homestead operating costs.
2. Working capital buffer maintained at a maximum of £30,000.
3. Abrdn senior debt service.
4. CPIL operating costs.
5. Payments into reserve accounts: abrdn loan requires a portfolio debt service reserve account (DSRA) and maintenance reserve account (MRA).
6. First community benefit payment: fixed payment of £3k/MW (+RPI) made by each asset to Wight Community Energy (via CORE Gemini).
7. CPIL w/c buffer of £40,000 and reasonable buffer for next abrdn debt service.
8. CET ltd operating costs.
9. CET working capital buffer of £10,000.
10. Community equity (capital and interest) – once the junior BSC/PTC debt has been repaid in full, Wight Community Energy will work to repay community share capital and interest.
11. Additional community benefit payment from remaining cash.

**Simplified cash waterfall from January 2037 (end of the abrdn loan term):**

1. Homestead operating costs.
2. First community benefit payment: fixed payment of £3k/MW (+RPI) made by each asset.
3. Community equity (capital and interest) – once the junior BSC/PTC debt has been repaid in full, Wight Community Energy will work to repay community share capital and interest.
4. Additional community benefit payment from remaining cash.
Commentary on historic financial performance

Financial information for FY19, FY20 and FY21 is derived from audited accounts after adjusting for non-recurring items. Financial information for FY22 is derived from pre-audited management accounts after adjusting for non-recurring items.

All information in the historic performance and financial forecast sections is deemed to be correct as of the share offer launch date.

Revenues

Revenue is generated from two sources, the sale of power and from public subsidy. Power is sold based on pre-agreed power purchase agreements (PPAs). In addition to revenues from PPAs, Homestead generates revenues from government-backed subsidies. Homestead generates subsidy revenue through the feed-in tariff (FiT) regime, which provides a quarterly payment from the government based on renewable electricity generation. Prices under the subsidy scheme are indexed to RPI and increase with inflation.

All revenues are linked to the asset’s power generation. The level of generation has fluctuated year-on-year depending on factors such as generating conditions, e.g. irradiance, air temperature. While generation fluctuates on a year to year basis, long term forecasts provide an effective tool to understand revenue generation.

Total revenue for Homestead was £609k in 2020 and £581k in 2021, and £639k in 2022. Compound annual growth rate for revenues from 2020 to 2022 was 2.5%. Revenues have fluctuated over Homestead’s operating life based on grid and power market conditions.
Operating expenses

Insurance – cover is held for both Operational and Terrorism risks with Allianz. This cover has been secured through to May 2025. Insurance for the asset is periodically renewed and is actively managed by the broker, Sustain IB.

Electricity (import) - consists of energy supply costs for onsite energy usage. Energy Supply contracts are actively managed by Bright Renewables, who regularly test the market to maximise value for money for the asset.

“O&M” represents the operation and maintenance costs for maintaining the asset. Homestead has an O&M service contract with Anesco through December of 2027. This contract is actively managed by Bright Renewables who work closely with Anesco to confirm operations are efficient and in line with agreed procedures.

Business Rates – or National Non-Domestic Rates are charged by the local council. These fees are charged at the rateable value of the asset. The local council for Homestead is Isle of Wight District Council.

Management charges are fees paid to the parent company of the asset. Management costs associated with the current owner, CORE LLP, are not incurred from 2022. From 2022 onwards, fees paid to the parent company are to pay CBF, and so management charges are now accrued under the community benefit fund line. Management costs associated with the current owner, CORE LLP, will not be incurred after the sale of the assets to the Community.

Asset management relates to fees and other costs due to the asset manager, Bright Renewables. As asset manager, Bright Renewables provide a suite of services spanning technical, operational, financial and governance matters. Key services include brokering the sale of energy to offtakers and managing key stakeholder contracts such as the O&M providers, insurer, landowners.

Community benefit fund covers distributions made to Wight Community Energy from Homestead to pay WCE operating costs and to tackle fuel poverty and support renewable energy innovation on the island.

Variance in community benefit fund between 2020 and 2021 is due to additional variable CBF distributions made during the COVID-19 pandemic in 2020.

2022 costs include portfolio support costs, which are the costs of maintaining the entities and structures needed to service the abrdn senior debt, which has been in place since December 2021.

Total operating expenses for Homestead were £140k in 2020, £150k in 2021, and £151k in 2022. From 2020 to 2022, operating costs grew at a compound annual growth rate of 4.0%. Operating costs are largely fixed and mainly increase by RPI. Compound annual growth rate for RPI for 2020 to 2022 was 7.8% for comparison (4.1% in 2021 and 11.6% in 2022).

Conclusion

EBITDA (Earnings before Interest, Tax, Depreciation & Amortisation) is derived from audited accounts and un-audited accounts for FY 2022 and has been adjusted for non-recurring items. Total EBITDA for Homestead was £469k in 2020, £432k in 2021, and £488k in 2022. This variance is primarily driven by power prices, which drove increased revenues in 2020 and 2022. Compound annual growth rate for EBITDA from 2020 to 2022 was 2.0%
Annex 6

Homestead Downside Scenarios

As part of the financial modelling, three downside scenarios have been developed to visualise the impact of changes to three key assumptions.

Scenario 1: Energy generation is lower than expected

- The forecast model projects the energy generation from a site by taking an ‘opening’ assessed energy generation provided by a technical advisor, assessed by looking at specific site irradiation (solar irradiation based on local pyrometers and satellite data records) and the specific technical design of the site (equipment used, orientation, positioning of key engineering components) and then reduced each year for panel degradation (in this case a figure of 0.4% per annum has been advised by the technical advisor).

- For Wight Community Energy’s solar asset (Homestead), the external technical advisor Everoze has provided energy generation forecasts as part of the senior debt due diligence process, on a P90 and P50 basis. Higher “P50” forecasts represent the forecast generation that Everoze modelling suggests has a 50% probability of being exceeded, while the lower “P90” forecasts have a 90% chance of being exceeded.

- P50 basis is the traditional accepted ‘equity’ case used by most ‘owners’ such as the large renewable power funds. P90 is the accepted ‘debt’ case used by most senior lenders to project a downside scenario to size their risk and thus what they are traditionally prepared to lend to a project. P90 is considered a prudent generation forecast view. Under a P50 case, the Homestead solar asset generates c. 4,250 MWh of net electricity each year.

- To model a downside case of lower than expected energy generation, the expected energy generation has been changed from P50 to P90 generation curve for the lifetime of the project.

As a result:

Under a P90 curve, Homestead generates c. 4,080 MWh of net electricity each year.

Total lifetime revenues are expected to be £11.9m, a reduction of -4%.

Operating costs are unaffected, apart from rent, which decreases by 1% due to the proportion of “income rent”, which is calculated on a % of revenues (which have also decreased).

Senior debt payments are unaffected.

Junior capital repayments are resculpted, as the BSC/PTC loan is repaid on a variable semi-annual repayment profile, based on surplus cash available. Under this scenario, the junior loan is fully repaid by Q4 2026, ahead of maturity and in line with the base case.

Community shares capital repayments commence following the Junior loan redemption. Repayments are subject to Wight Community Energy’s discretion, and are modelled to be fully repaid by Q4 2026, in line with the base case.

The forecasted cash balance at the end of the forecast in this scenario is £2.1m, vs £2.5m in the base case scenario. As a result, the forecasted total community benefit
distribution potential could be up to £2.4m (i.e. £2.1m of cash + fixed CBF distributions of c. £300k), vs c. £2.8m in the base case.

**Scenario 2: Power prices (outside of contracted PPA period) are lower than expected**

- The forecasted model assumes that all assets receive payments for exported electricity at the contracted fixed price for power purchase agreements (PPAs) to March 2026.
- Thereafter, the solar assets are modelled to sell exported electricity at a price derived from a blended power curve (forecast wholesale power prices from Q1 2023 to Q4 2060) against forecasts from Afry, Aurora, and Baringa provided in Q3 2022.
- To model the scenario that electricity is sold at a lower than expected power price, the blended power curve in this scenario is lowered by -10% for electricity sales from PPA expiry (March 2026) until the end of the project life.

As a result:

Total lifetime revenues are expected to be £11.8m (-5%).

Operating costs are unaffected, apart from rent, which decreases by 1% in line with the mechanics described in Scenario 1.

Senior debt payments are unaffected.

Junior capital repayments are resculpted, as the BSC/PTC loan is repaid on a variable semi-annual repayment profile, based on surplus cash available. Under this scenario, the junior loan is fully repaid by Q4 2026, ahead of maturity and in line with the base case.

Community shares capital repayments commence following the Junior loan redemption. Repayments are subject to Wight Community Energy’s discretion, and are modelled to be fully repaid by Q4 2026, in line with the base case.

The forecasted cash balance at the end of the forecast in this scenario is £2m, vs £2.5m in the base case scenario. As a result, the forecasted total community benefit distribution potential could be up to c. £2.3m (i.e. £2m of cash + fixed CBF distributions of c. £300k), vs c. £2.8m in the base case.

**Scenario 3: Inflation is lower than expected**

- Both the project's expected revenues as well as various cost items are impacted by inflation, as electricity prices are influenced by inflation, whilst subsidy revenues, senior debt interest and capital, and most cost contracts are also linked to inflation. As per Scenario 2, the impact on PPA revenues due to lower electricity prices only occurs post March 2026.
- In general, higher inflation is positive as the revenue increase in absolute terms is larger than the cost increases, resulting in an overall increase of profits.
- In the base case model, inflation assumptions have been aligned with UK government (OBR) forecasts, from November 2022, subject to a floor of 0% (i.e. no deflation). Future estimates have assumed to taper to a flat 2.5% lifetime Retail Prices Index (RPI) and flat 2.5% lifetime Consumer Prices Index (CPI) measures.
- To model the impact of lower than expected inflation, both the RPI and CPI curve have been reduced by -1% per annum, subject to a floor of 0%.

As a result:

Total lifetime revenues are expected to be £11.7m (-6%).
Operating costs are expected to be £2.7m (-7%). The higher % decrease in costs vs revenue is due to the additional decrease in income rent in line with reduced revenues, and the decrease in PPA revenues only impacting post-PPA expiry in March 2036. Absolute decrease, however, is greater for revenues.

Senior debt capital payments are impacted, as the senior debt capital repayments and interest payments are RPI indexed. In this scenario, total senior debt payments are expected to be £3.9m (-4%).

Junior capital repayments are resculpted, as the BSC/PTC loan is repaid on a variable semi-annual repayment profile, based on surplus cash available. Under this scenario, the junior loan is fully repaid by Q4 2026, ahead of maturity and in line with the base case.

Community shares capital repayments commence following the Junior loan redemption. Repayments are subject to Wight Community Energy’s discretion, and are modelled to be fully repaid by Q4 2026, in line with the base case.

The forecasted cash balance at the end of the forecast in this scenario is £2.2m, vs £2.5m in the base case scenario. As a result, the forecasted total community benefit distribution potential could be up to c. £2.5m (i.e. £2.2m of cash + fixed CBF distributions of c. £250k), vs c. £2.8m in the base case.
## Annex 7

### Homestead Financial Forecast

#### Homestead forecast

<table>
<thead>
<tr>
<th>(In £1,000s)</th>
<th>Years 1-5</th>
<th>Years 6-10</th>
<th>Years 11-15</th>
<th>Years 16-20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsidy</td>
<td>1,950</td>
<td>2,138</td>
<td>962</td>
<td>-</td>
</tr>
<tr>
<td>Export - FIT</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Export - PPA</td>
<td>2,463</td>
<td>2,038</td>
<td>2,057</td>
<td>778</td>
</tr>
<tr>
<td>Embedded benefits</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>REGO</td>
<td>11</td>
<td>12</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Other revenue</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total revenues</strong></td>
<td>4,427</td>
<td>4,188</td>
<td>3,025</td>
<td>778</td>
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</table>

#### Operating expenses

<table>
<thead>
<tr>
<th></th>
<th>Years 1-5</th>
<th>Years 6-10</th>
<th>Years 11-15</th>
<th>Years 16-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent</td>
<td>(219)</td>
<td>(221)</td>
<td>(244)</td>
<td>(102)</td>
</tr>
<tr>
<td>Rates</td>
<td>(43)</td>
<td>(45)</td>
<td>(51)</td>
<td>(20)</td>
</tr>
<tr>
<td>Insurance</td>
<td>(31)</td>
<td>(34)</td>
<td>(39)</td>
<td>(16)</td>
</tr>
<tr>
<td>Supplies</td>
<td>(12)</td>
<td>(14)</td>
<td>(15)</td>
<td>(6)</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>(169)</td>
<td>(182)</td>
<td>(206)</td>
<td>(83)</td>
</tr>
<tr>
<td>Surveillance, data &amp; comms</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Asset management</td>
<td>(139)</td>
<td>(152)</td>
<td>(171)</td>
<td>(69)</td>
</tr>
<tr>
<td>Other &amp; non-recurring</td>
<td>(19)</td>
<td>(21)</td>
<td>(24)</td>
<td>(10)</td>
</tr>
<tr>
<td>Ongoing Portfolio Support Costs</td>
<td>(86)</td>
<td>(96)</td>
<td>(69)</td>
<td>-</td>
</tr>
<tr>
<td>Community payout/CBF</td>
<td>(69)</td>
<td>(77)</td>
<td>(87)</td>
<td>(35)</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>(786)</td>
<td>(841)</td>
<td>(907)</td>
<td>(341)</td>
</tr>
</tbody>
</table>

|                        |           |            |             |             |
| **EBITDA**             | 3,641     | 3,347      | 2,118       | 437         |
| **Depreciation**       | (1,547)   | (1,579)    | (711)       | (17)        |
| **EBIT**               | 2,095     | 1,768      | 1,407       | 420         |

#### Cashflows (£1,000s)

<table>
<thead>
<tr>
<th></th>
<th>Years 1-5</th>
<th>Years 6-10</th>
<th>Years 11-15</th>
<th>Years 16-20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EBITDA</strong></td>
<td>3,641</td>
<td>3,347</td>
<td>2,118</td>
<td>437</td>
</tr>
<tr>
<td>Corporation tax</td>
<td>(313)</td>
<td>(659)</td>
<td>(463)</td>
<td>(136)</td>
</tr>
<tr>
<td>Capex inc. above and outside of MRA</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Interest</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior debt</td>
<td>(18)</td>
<td>(13)</td>
<td>(5)</td>
<td>-</td>
</tr>
<tr>
<td>Junior debt</td>
<td>(107)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Community</td>
<td>(214)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other interest</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Other movements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Movement in working capital/VAT</td>
<td>16</td>
<td>3</td>
<td>102</td>
<td>(15)</td>
</tr>
<tr>
<td><strong>Cash flow before financing</strong></td>
<td>3,007</td>
<td>2,678</td>
<td>1,750</td>
<td>286</td>
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</table>

#### Financing outflows

<table>
<thead>
<tr>
<th></th>
<th>Years 1-5</th>
<th>Years 6-10</th>
<th>Years 11-15</th>
<th>Years 16-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Cash movements across refinancings</td>
<td>17</td>
<td>10</td>
<td>56</td>
<td>-</td>
</tr>
<tr>
<td>DSRA movements</td>
<td>(44)</td>
<td>-</td>
<td>252</td>
<td>-</td>
</tr>
<tr>
<td>MRA capex movements</td>
<td>(127)</td>
<td>(54)</td>
<td>(18)</td>
<td>-</td>
</tr>
<tr>
<td>Senior debt</td>
<td>(1,505)</td>
<td>(1,388)</td>
<td>(1,128)</td>
<td>-</td>
</tr>
<tr>
<td>Junior debt</td>
<td>(690)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Community</td>
<td>(860)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total financing outflows</strong></td>
<td>(3,211)</td>
<td>(1,432)</td>
<td>(839)</td>
<td>-</td>
</tr>
</tbody>
</table>

|                        |           |            |             |             |
| **Opening cash**       | 244       | 40         | 1,286       | 2,197       |
| Movement in period     | (204)     | 1,246      | 911         | 286         |
| **Closing cash**       | 40        | 1,286      | 2,197       | 2,483       |
| **Reserves**           | 318       | 308        | -           | -           |
| **Closing cash + reserves** | 358 | 1,594      | 2,197       | 2,483       |
Commentary on financial forecast

The financial model years run from October to September. The start year for the financial forecasts is October 2023 to September 2024 as the expected transaction closing date is 30th Sept 2023.

Revenues

The asset generates revenues from both subsidies and the export of energy, both of which are contingent on energy generation. The key factors for energy generation are (i) irradiance, (ii) performance ratio (i.e. the efficiency of the solar PV plant in converting solar energy to electricity), (iii) annual panel degradation and (iv) availability.

The external technical advisor, Everoze Partners, has provided energy generation forecasts. Homestead generates around 4,46 GWh of net electricity each year (decreased by 0.4% each year to account for panel degradation).

The asset has signed PPAs until March 2026. Under the PPAs, Homestead receives exported electricity at the fixed contracted price. Average PPA prices for October 2023-March 2026 are £96.59/MWh for Homestead.

Thereafter, it has been modelled that the asset will sell exported electricity at a price derived from a blended power curve against forecasts from AFRY Management (formerly Poyry), Aurora, and Baringa in Q3 2022.

Homestead will receive subsidy payments to December of 2035 through the FIT generation tariff at a rate of 8.61p/kWh, or £86.10/MWh (increasing with RPI). As a FIT subsidised asset, Homestead also has access to the FIT Export tariff. This provides long term downside price protection.

Renewable Energy Guarantees of Origin (REGO) revenues are paid on a per MWh basis by electricity suppliers. REGO certificates demonstrate that electricity has been generated from renewable sources and are issued at 0.5 certificates per eligible MWh of renewable output at a modelled price of £1 per certificate.

Costs

Average annual rent payment consists of fixed and income rent, increasing with RPI. Homestead’s lease agreement expires in August of 2040. Income rent is an expense, which is calculated as a percent of revenues. If the income rent amount calculated exceeds fixed rent, the asset pays the difference between fixed and income rent to the landlord on top of the fixed rent.

Business Rates – or National Non-Domestic Rates are charged by the local council. These fees are charged at the rateable value and modelled at c. £8k annually, increasing with CPI.

Annual insurance costs for Homestead are modelled at c. £6k, with this modelled cost increasing each year based on RPI. Actual future pricing is driven by market forces and may fall or rise over time.

Energy supply refers to power supply costs. Annual energy supply costs paid by the asset are modelled at c. £2k, which are modelled to increase with RPI. The energy supply market has been volatile over the past 18 months due to macro-economic market forces.

Modelled O&M costs include service fees for planned preventative maintenance and land management for the asset as well as provision for ad-hoc costs and ongoing repairs. Total O&M costs for Homestead are assumed at c. £35k in Year 1 & 2 (ending Q3 2024 & 25 respectively) and c. £33k in Year 3 & 4 (ending Q3 2026 and 2027 respectively). Thereafter, O&M costs are assumed at c. £34k annually, rising with CPI. After the expiry of the existing contract, it is expected that Homestead will be able to reduce O&M costs further.
Asset management costs are those due to Bright Renewables, the community owned asset manager for CET solar assets. Annual asset management costs start at c. £28k, rising with CPI.

Other and non-recurring costs covers metering costs, accountancy and audit fees and banking costs. These costs are assumed at c. £4k annually, rising with inflation.

Costs also include ongoing portfolio support costs, which are the costs of maintaining the entities and structures needed to service both the senior and junior debt. Ongoing portfolio support costs have been modelled at a fixed rate, starting at c. £17k and increasing with RPI.

Fixed CBF distributions are modelled at a fixed rate, starting at c. £13k and rising with RPI.

**Cashflows**

Positive net operating cashflows means that Homestead is expected to meet all its tax obligations, senior and junior debt payments (interest and capital) and is forecast to provide 6% fixed rate on the community shares and a lifetime community benefit of c. £2.5m.

Modelled corporation tax is based on the updated corporation tax structure implemented in April 2023. Profits up to £50k will be subject to 19% tax, profits over £250k subject to 25% tax. A marginal rate of 26.5% is chargeable on profits above £50k and below £250k. The asset is not expected to pay corporation tax until year 4 (beginning Q3 2026).

Total Capex movements shows the funds released from the Maintenance Reserve Account (MRA). Total Capex movements is not a classed as a cashflow movement since the funds are coming from the MRA account, rather than cashflows themselves – therefore this is displayed for information purposes only. Capex inc. above and outside of the MRA (i.e. if there’s insufficient funds on account) does count as a cashflow item and is included in the forecast as a cash outflow when it occurs.

Modelled financing outflows include movements for the debt service reserve account (DSRA) and funding of the maintenance reserve account (MRA). These are maintained at the portfolio level and are a requirement of the senior loan from abrdn.

Interest on the community shares is expected to be paid at 6%.

Capital repayments on the community shares have been modelled after the end of the junior loan term, based on cash flow available, with all community shares expected to be repaid by Q3 2028 (Year 5).

Senior debt is amortising with the abrdn loan capital fully repaid by the maturity date in December 2036. Long-term cashflows are forecasted to be positive, with closing cash sustained above the minimum required working capital balance of £30k per asset (plus additions required to service senior debt) from 2023-2028, with excess cash being swept to repay the junior loan during this period. Thereafter, cash balances is forecasted to increase to c. £2.5m by Q3 2041 (Year 18).

This surplus cash can in time be reinvested into the local communities via additional Community Benefit Payments. Hence, the forecasted total community benefit distribution potential is c. £2.5m (including fixed CBF distributions).
## Annex 8

### CET Portfolio Financial Forecast

<table>
<thead>
<tr>
<th>Cashflow projections (£1000s)</th>
<th>Years 1-5</th>
<th>Years 6-10</th>
<th>Years 11-15</th>
<th>Years 16-20</th>
<th>Years 21-25</th>
<th>Years 26-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenues</td>
<td>33,051</td>
<td>30,604</td>
<td>24,962</td>
<td>12,775</td>
<td>7,258</td>
<td>1,296</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>(6,885)</td>
<td>(7,492)</td>
<td>(8,070)</td>
<td>(6,041)</td>
<td>(3,563)</td>
<td>(668)</td>
</tr>
<tr>
<td>EBITDA¹</td>
<td>26,166</td>
<td>23,112</td>
<td>16,892</td>
<td>6,735</td>
<td>3,695</td>
<td>627</td>
</tr>
<tr>
<td>Corporation tax</td>
<td>(1,178)</td>
<td>(3,914)</td>
<td>(3,281)</td>
<td>(691)</td>
<td>(647)</td>
<td>(81)</td>
</tr>
<tr>
<td>Movement in working capital/VAT</td>
<td>178</td>
<td>79</td>
<td>846</td>
<td>(80)</td>
<td>72</td>
<td>(49)</td>
</tr>
<tr>
<td>Senior debt (interest and capital)</td>
<td>(12,125)</td>
<td>(11,153)</td>
<td>(9,019)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Junior debt (interest and capital)</td>
<td>(9,871)</td>
<td>(4,013)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Community equity rate</td>
<td>(1,742)</td>
<td>(1,262)</td>
<td>(2,595)</td>
<td>(141)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net cash movements across refinancings</td>
<td>66</td>
<td>128</td>
<td>465</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Reserve movements (DSRA/MRA)²</td>
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<td>(800)</td>
<td>1,728</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Movement in period</td>
<td>(58)</td>
<td>2,178</td>
<td>5,035</td>
<td>5,823</td>
<td>3,119</td>
<td>496</td>
</tr>
<tr>
<td>Opening cash</td>
<td>1,771</td>
<td>1,713</td>
<td>3,891</td>
<td>8,926</td>
<td>14,750</td>
<td>17,868</td>
</tr>
<tr>
<td>Movement in period</td>
<td>(58)</td>
<td>2,178</td>
<td>5,035</td>
<td>5,823</td>
<td>3,119</td>
<td>496</td>
</tr>
<tr>
<td>Closing cash</td>
<td>1,713</td>
<td>3,891</td>
<td>8,926</td>
<td>14,750</td>
<td>17,868</td>
<td>18,365</td>
</tr>
<tr>
<td>Reserves (DSRA/MRA)²</td>
<td>2,594</td>
<td>2,467</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Closing cash + reserves</td>
<td>4,307</td>
<td>6,358</td>
<td>8,926</td>
<td>14,750</td>
<td>17,868</td>
<td>18,365</td>
</tr>
</tbody>
</table>

¹ EBITDA is defined as earnings before interest, tax, depreciation and amortisation

²DSRA (“Debt Service Reserve Account”) and MRA (“Maintenance Reserve Account”) are part of the senior debt requirements

### Commentary on Community Energy Together Limited portfolio financial forecasts

Homestead is part of a larger portfolio of 8 assets owned by the five Communities around England and Wales forming a combined 36.2MW total installed capacity. The portfolio has an average remaining life across the 8 assets of c. 21 years from the model start date of October 2023.

These assets are cross collateralised under the abrdn loan (Senior Debt) and BSC/PTC loan (Junior debt) debt agreement, which ensures that if any asset underperforms (e.g. with meeting debt obligations), then the other assets will contribute towards supporting the underperforming asset, thereby maintaining integrity of the portfolio.

To provide a view of the portfolio as a whole, the following financial forecasts are provided from a combined portfolio financial model, which includes all of the underlying assets:
Revenues are generated from a combination of subsided income from Feed-in Tariffs (FiTs) (five assets) and Renewables Obligation Certificates (ROCs) (two assets), and unsubsidised income (one asset). Total forecast lifetime revenues are c. £110m.

The cost items at the portfolio level are the same across the assets, on an aggregated basis. Total operating costs are modelled to increase annually with inflation until they peak at c. £1.7m in year 13 (September 2036), following which they are expected to decrease as assets reach their expected end date. Total forecast lifetime costs are c. £33m.

Therefore, total forecast lifetime EBITDA is c. £77m.

Total senior debt, outstanding with abrdn, at the time of the transaction is expected to close is c.£24.2m. A portion of the senior debt is attributed to each of the 8 assets, which includes the cross collateralisation aspect. The applicable financing terms are consistent across the assets (see individual descriptions for details).

Total junior loan that is expected to be provided by BSC/PTC is £10.5m, which is expected to mature in September 2028 and is repaid on a cash available basis (subject to waterfall, see below). Any amounts remaining at maturity are assumed to be refinanced by a further community equity raise, and is the responsibility of CET. The model forecasts that c. £2.9m will be required to be refinanced at maturity. Financing terms are consistent across the assets.

Community share capital inflow totals £2.35m (which is based on the combined raise of £2.5m, adjusted for transaction related costs), with capital repayments commencing following the junior loan redemption. Repayments are made at the Communities’ discretion, whilst the model forecasts that the full amount is repaid by 2039.

Overall, the cashflows generated across the portfolio are expected to support all costs and financing in addition to a forecasted combined lifetime CBF payments of c. £22m.
Annex 9

Isle of Wight Electrical Network Constraints

The electricity network on the Isle of Wight is highly constrained. During sunny periods in the summer, embedded generation exceeds demand and power must be exported at levels that exceed the theoretical limits of the network capacity. Consequently, under the present network structure and control systems, further embedded generation can only be connected at much greater cost and risk than in non-constrained areas.

The Isle of Wight is supplied with electricity from a primary substation at Fawley on the mainland, via an intermediate substation at Langley through three 132kV circuits. Each of the three 132kV circuits comprises a submarine cable section beneath the Solent, with an underground cable section on the Isle of Wight and an overhead line section on the mainland. Each of the three circuits is rated at 124MVA (winter) / 99MVA (summer). The responsible DNO is SSEN.

Electricity Demand and the Generation Constraint

The maximum electricity demand on the Isle of Wight can reach 140MW during winter peak periods. In contrast, it can drop as low as 35MW in summer weekends, a fourfold reduction. This is a greater swing than for the UK as a whole, which ranges from 20 to 55GW. The daily swing also tends to be somewhat higher on the Island than the UK average. These large swings in demand present problems for network management, which are compounded by the relatively large amount of embedded generation on the Island. This totals around 100MW, mainly solar PV but also anaerobic digestion. Consequently, during sunny periods in the summer, embedded generation far exceeds demand and power must be exported. The level of export approaches the theoretical limits of the network capacity and consequently no further embedded generation can be connected under the present network structure and control systems.

This generation constraint is relatively unusual in the UK, where demand constraints are much more common. However, as embedded renewable generation increases across the UK in response to decarbonisation targets, it will become a more common scenario, making the Isle of Wight well placed to demonstrate how generation constraints can be managed and minimised.

This situation is unlikely to change significantly in the near term. In any event, achieving a shift to 100% renewable electricity, an ambition of local stakeholders such as Future Isle of Wight, Wight Community Energy and the Isle of Wight Council, will need new approaches including the development of short and long-term storage and a smarter network. The Isle of Wight Council and WCE have brought together a number of groups on the Island to work together to challenge this situation; investigating ways to move to a smarter grid that will allow more capacity to come online without the need for prohibitively expensive hardware upgrades.

In particular, we are investigating the potential for demand management - primarily demand turn-up. In practice, since the major constraint on the network is the coincidence of high summer solar generation and low weekend demand, the situation that can be alleviated by using storage to soak up the peak solar output. The Island has a large influx of summer visitors (circa 2 million per annum), which corresponds to the periods of greatest stress on the network. By targeting measures to the tourist season, it is possible to achieve the twin goals of improving the utilisation of the network and advancing green tourism.
By aggregating distributed storage with intelligent control systems, we believe that it will be possible to create a large distributed virtual battery that avoids the prohibitive connection costs associated with a single point installation. This “battery” will comprise a range of technologies, including electric vehicles, internet connected smart water heating and hydrogen generation. Many other islands across the globe face similar issues to the isle of Wight, so the potential for technology and experience transfer is high through the networks that link island communities. For example, https://www.h2020smile.eu/ and https://euislands.eu/