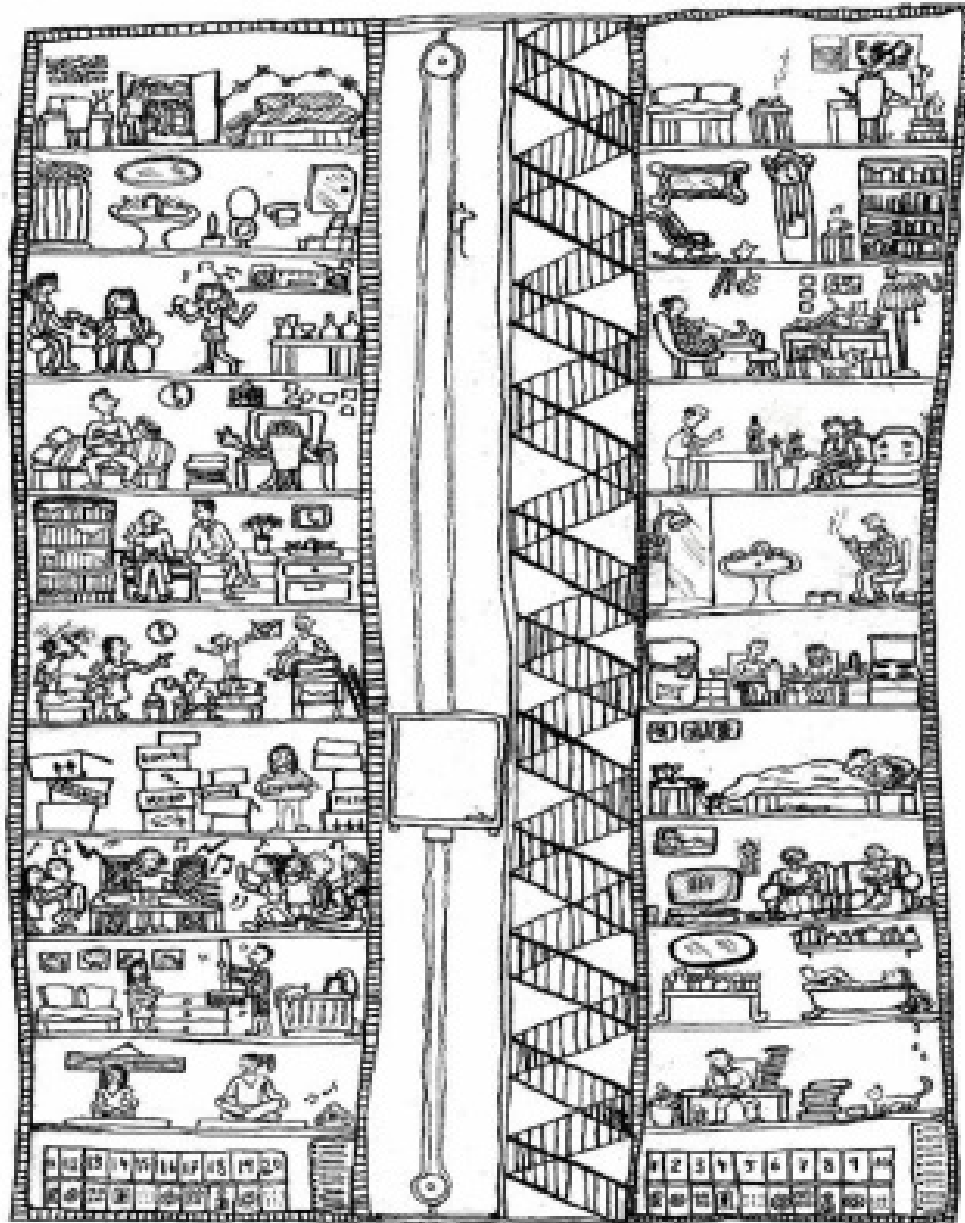


# Tower Power



## Introduction

The Local Energy Challenge Fund supported the development of CESURA – Community Energy Supply for Urban and Rural Areas, a feasibility study investigating the potential of aggregating energy demand to achieve cheaper electricity for a whole community. The investigation also explored the role of renewables in contributing directly to urban community energy needs, to contribute to cheaper local energy, in a ‘complex site’ model.

In summary, the investigation concluded:

- Aggregation of demand through Smart Meters, networked by wifi, has high potential to enable urban communities with multi-rise buildings to achieve electricity tariffs well below current market rates, by enabling the community to present as a “commercial load” to suppliers.
- There is added value by using demand data to enable suppliers to manage supply across a 24 hour period, using storage heating as a means of ensuring peak time electricity is used less. This does require storage heaters to be new or adapted.
- The end of Feed In Tariffs could impact on community use of renewables. However, we established that Solar PV installation on some roofs in the multi-rise area could help the community achieve savings to offset electricity costs. Work in Glasgow to explore directly supplying communities from local electricity generation, modelled on the Commonwealth village and Emirates Stadium site, supports this.
- Local investigation of community need provided an overview of a community burdened by higher pre-payment tariffs (85%) and fuel debt. We can project a 25% saving on electricity tariffs for most community members (based on Scottish average tariffs); there are diverse suppliers in the area and many people have found switching challenging, due to low confidence, low use of the internet for comparison sites, and poor follow-through by suppliers.
- We encountered 100% support for a community-led company and cheaper electricity, but our work locally also showed that a local customer services team would be needed, to help people switch, and then to provide budgeting support, energy advice and customer service. We felt this would be the only way to ensure a local energy company would be successful and sustainable.
- Financial projections showed that savings on electricity are sufficient to enable a local team to be sustained after Local Energy Challenge Fund investment.

This is the final report following monthly updates to the Local Energy Challenge Fund. The following chapters address the first six work packages described in the Phase 1 application (*note: work under the 7<sup>th</sup> and final work package is detailed in the monthly spreadsheet update*).

## Financial Report

<b>Work Package</b>	<b>Total Project Costs (including VAT)</b>
Community engagement and participant data collection	£9,152
Demand & benefit analysis	£4,028
Future project roll out	£6,258
Technology assessment	£2,734
Incorporation of local generation	£2,945
Business model development	£6,043
Project management and admin	£3,200
<b>Total Project Costs</b>	<b>£34,361</b>
<b>Recorded In-kind contributions (CES and Comas)</b>	<b>-£9,507+</b>
<b>Adjustment in spreadsheet rounding (See Oct 15 spreadsheet)</b>	<b>+£73</b>
<b>Total Claimed from LECF</b>	<b>£24,928 (note: &lt;72.5% of total project costs)</b>
<b>Grant Total</b>	<b>£25,000</b>

## Work Package 1: Community Engagement and Participant Data Collection

### Introduction

In order to assess the potential of Community-led energy scheme, a significant amount of data needed to be collected regarding energy use in the Dumbiedykes area. And in order for the scheme to succeed in the long run, local participation needed to be maximised. Therefore, under this work package, we aimed to:

- Create awareness raising materials to use during the community engagement process;
- engage with Dumbiedykes residents door to door, and through public meetings; to gather information on their priorities, energy bills, metering arrangements, and to assess and develop support for the project aims;
- liaise with private owners in Dumbiedykes and Edinburgh council regarding the project, and establish communication channels allowing residents and owners to input into the project;
- investigate interest and set out next steps required for establishment of a vehicle for community representation and input.

### Our Approach

In order to achieve these aims, we carried out an extensive programme of community engagement. This included:

- Creating informative leaflets and posters which were distributed throughout the community
- Spending on average 15 hours a week door knocking within the Dumbiedykes community - which amounts to over 750 hours in the last year – in order to create awareness and generate interest
- Through door knocking, completing household personal circumstance surveys with the community members, which include a detailed questionnaire on their energy situation (*please see annex for Community Member Survey*)
- Having the community shop serve as an accessible point of contact where community members could come to discuss their individual circumstances and fill out the survey (through other aspects of the Comas 20More project e.g. benefits advice we were able to introduce the CESURA scheme to a large number of residents)
- And finally, holding a community meeting in the shop in order for residents to discuss the scheme collectively.

### Our Findings

Through our approach, we have managed to:

- Connect to over 200 households in the Dumbiedykes area, which equates to around a third of all local households
- Complete over 100 individual surveys in the area
- Set up a baseline of data on all aspects of household expenditure and utilities use, which gives a detailed overview of the community's energy situation.

From this we discovered that according to a sample of community members:

- Over 25% of residents do not have enough heating to be comfortable, this reaches 40% for high rise residents<sup>1</sup>
- 40% of residents have recently gone without power for a period of time, for high rise households the figure is 50%<sup>2</sup>. On average, the period of no power lasts 3 days, but can last up to 2 weeks

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<sup>1</sup> Based on 39% sample of all project households (equal to 12% sample of all Dumbiedykes Households), high rise figure based on 29% sample of all project high rise households (equal to 12% sample of all Dumbiedykes Households)

- A third of community members struggle to cope with high energy prices<sup>3</sup>, with 15% of community members paying over £100 per month for electricity
- In 60% of households heating systems do not work properly<sup>4</sup>
- And a number of households live with concerns around high energy debt (we are helping a number of households in these situations. So far we have written off over £2,500 worth of energy debt for community members)

To summarise the current situation, in the words of one community member: *“Heating is too expensive, doesn’t work properly and is out of my control”*

Going forward, a 25% saving on energy bills through the energy scheme would amount, on average, to a monthly saving of around £17 per household<sup>5</sup> (see work package 2 for further information regarding the calculation of this tariff). In reality this could mean:

- A saving of £12.50 per month, which equates to £150 per year, for one community member who is a single mother with two children
- And a saving of £17 per month, and £204 a year, for a local elderly couple

This evidence highlights the potential impact the scheme project could have on the community, and through the community engagement process it has been established that there is appetite for switching energy providers if savings are achievable. In fact, we have found essentially 100% of community members asked are interested in the community-led energy scheme.

In terms of a vehicle for community representation and structure, community members have increased their knowledge and governance arrangements for a future Dumbiedykes Community Services Company through a visit to Fintry LESCO. Governance options were explored and a Limited Company with charitable status model was identified as the appropriate structure, allowing for future development of the holistic approach (advice, behaviour change) to supplement the customer service business of aggregating data and brokering cheaper fuel.

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<sup>2</sup> Based on 34% sample of all project households (equal to 10% sample of all Dumbiedykes households), high rise figure is based on 22% sample of all project high rise households (equal to 10% sample of all Dumbiedykes Households)

<sup>3</sup> Based on a 14% sample of all project households (equal to 5% sample of all Dumbiedykes households)

<sup>4</sup> Based on a 14% sample of all project households (equal to 5% sample of all Dumbiedykes households)

<sup>5</sup> Based on a median of 44% sample of all project households (equal to 14% sample of all Dumbiedykes households) (note percentages vary between samples as respondents don’t always answer all survey questions)

## Work Package 2: Demand and Benefit Analysis

### Introduction

In order to assess the value of the scheme, we needed to: calculate energy demand within Dumbiedykes; calculate a competitive tariff; and finally compare this tariff to current energy tariffs in the area. Therefore, under this work package, our aims were to:

- Collate and process data collected as part of work package 1 to estimate likely demand for community supply at Dumbiedykes;
- define method and costs for monitoring power flows to Dumbiedykes trial site;
- gather and process additional half-hourly electrical demand data, through installation of measurement equipment at the main incomer to at least one block;
- establish communications with a number of licensed electricity suppliers, and secure quotes or estimates for supplying an aggregated half hourly MPAN based on data gathered through work package 1; and
- use data gathered to complete a cost benefit analysis from a customer point of view.

### Our Approach

#### Demand Modelling:

- The cost of aggregate supply depends heavily on the profile and magnitude of electricity demand at Dumbiedykes. It was hoped that block energy demand could be directly metered as part of the first phase of the project; however the design and condition of cabling at Dumbiedykes prevented us from taking these measurements.
- As an alternative energy demand at Dumbiedykes was modelled using a tool based on the University of Strathclyde's 'Electricity Demand Estimator' <sup>[1]</sup> model. With inputs to this model based on the results of the survey undertaken under Work Package 1.
- Survey data from a sample of 70 households was used, representing 10% of Dumbiedykes residents; of which 22 were high rise inhabitants (12%) and 48 were tenement inhabitants (10%). This data allowed modelling of demand according to housing type and condition, employment status and heating type.
- To verify the modelled results, energy use was monitored from November 2015 to January 2016 at seven properties using storage heaters.

#### Calculating the tariff:

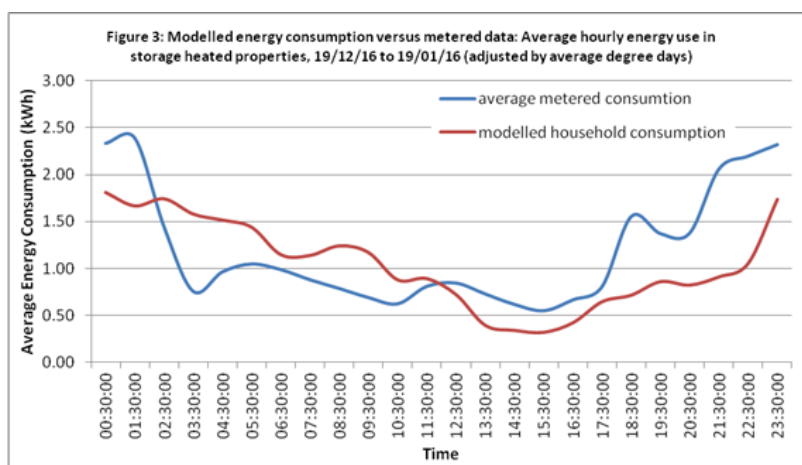
- In order to calculate a figure we approached 3 energy supply companies; Our Power, Tempus, Go Effortless. Only two were able to provide a quote for supply of such an arrangement; Tempus and Go Effortless, of which Tempus was the cheapest.
- From this value we built in operating costs of the community ran organisation. This includes staff time, external organisational support, metering and pre-payment fees and the build-up of a reserve fund which is good practice for all companies to have in place.
- From here we could compare with current tariffs to complete a cost benefit analysis for potential customers.

### Our Findings

#### Demand Modelling:

- Based on the model detailed above, average annual energy consumption across Dumbiedykes is estimated at 6,757kWh, which is substantially higher than the UK averages used by DECC.

- High electricity consumption may be explained by the poor condition of housing and heating stock in Dumbiedykes, coupled with Edinburgh's colder than UK average temperatures.
- After adjusting for the slightly warmer than average weather this year (336.7 degree days in the period as opposed to an average of 341.5 degree days),<sup>[2]</sup> actual total energy consumption for the seven households between November 2015 and January 2016 was 1060kWh, within 1% of the 1071kWh predicted by the model for storage heated houses at this time of year.
- The graph below shows the match between modelled and metered data. While total energy use closely matches modelled data, the consumption profile differs significantly more; in part due to a higher number of customers on the Total Heat Total Control pre-payment tariff (with off-peak periods visible at 10pm, 1am and 5am), and fewer on traditional Economy 7/10 storage heater tariffs. As customers must leave their current tariffs (be they THC or E7/10) to join the project, and control equipment will be installed on storage heaters to allow Tempus Energy to shift heating demand times, the discrepancy between measured data and the modelled half hourly demand profile is not expected to have a significant impact on supply costs.



#### Calculating the tariff:

- The tariff is based on the price we will be buying the energy in at - Tempus Energy provided the lowest price quote of £0.0879 p per kWh - plus all operational costs and is estimated at £0.1135 per kWh.
- Obviously all of our models are highly dependent on the volume of sales that we make. In terms on how much electricity we will be selling we have estimated a 100% resident sign up figure phased over 3 years.

#### Potential Cost Savings from Aggregation:

- Energy cost data gathered from Dumbiedykes indicated that many residents are currently paying over the average for their electricity – partly due to the high penetration of pre-payment meters<sup>6</sup>, and high levels of debt among some customers.
- However, in the absence of a statistically robust average price for energy paid in Dumbiedykes, and to avoid any over-estimation of savings, this comparison assumes Dumbiedykes residents are paying the UK average price for their energy. Based on DECC statistics for Southern Scotland<sup>[3]</sup> this would equate to a per unit rate of 15.0 p/kWh; meaning an average household would save up to 25%, or £215 per year, by switching to the aggregated MPAN.
- In addition, residents receive support from the onsite community workers employed by the COSERCO, and would benefit from a windfall fund re-distributing any surplus made by the COSERCO above that it must retain to ensure fiscal stability.

<sup>[2]</sup> Degree day data from Edinburgh Airport (weather station ref: EGPH) at <http://www.degree-days.net/>

<sup>[6]</sup> According to two different samples, between 65 to 85% of Dumbiedykes households are on pre-payment meters.

<sup>[3]</sup> DECC 'Average annual domestic electricity bills for UK countries [sic]', QEP 2.2.2, (2015)

- Total savings and in kind benefits to Dumbiedykes from these services are estimated at £232,073 per year, or £346 per household per year. This equates to a payback on the LECF grant investment of less than 6 years.

Household Type	ANNUAL DIRECT BENEFITS		ANNUAL INDIRECT BENEFITS		TOTALS	
	Electricity Saving (£)	Electricity Saving (%)	Funding for 1.5 FTE community support at Dumbiedykes (£)	Windfall Fund (£)	Net weekly benefit (£)	Net annual benefit (£)
Storage heating	£273.18	21.37%	-	-	£5.25	£273.18
No Electric heating	£131.36	28.97%	-	-	£2.53	£131.36
<i>Dumbiedykes total</i>	<i>£149,756.27</i>	<i>25.57%</i>	<i>£69,500.00</i>	<i>£16,733.62</i>	<i>£4,538.27</i>	<i>£235,990.14</i>

- Alternatively, we can compare this saving against other current tariffs. People in the sample used 7 different energy providers, although 40% of people do not know who their provider (this is common amongst people who use prepayment meters, as there is a higher tendency to rely on the meter itself to monitor use)

	% customers in our sample	Prepayment Meter Tariff	With standing Charge applied	Tower Power Tariff (no standing charge)	Saving per KWH
Scottish Gas	11	13.36	26.01	9.72	3.64
Scottish Power	37	13.84	27.39	9.72	4.12
Eon	4	13.45	26.01	9.72	3.73
Npower	1	16.46	11.5	9.72	6.74
EDF	1	14.31	18.9	9.72	4.59
OVO	1	15.77	23.43	9.72	6.05
SSE	5	13.46	27.4	9.72	3.74

Current projections based on sales of electricity to customers at 9.72 p/kWh based on quotes received from suppliers.

### Sensitivity and worst case savings:

- The price given by Tempus Energy was based on modelled total demand, assuming staged sign-up of customers in line with the project targets. Tempus have indicated that their offer will vary in line with changes in the 6 month forward curve electricity wholesale prices, which could be as great as ±10%.
- Further variation could be caused by; a significant increase or decrease in the percentage of customers with controllable electric heating systems; high levels of reactive power demand; high or lower than expected per-household electricity use; or variation in the rate of customer sign-up.
- A sensitivity analysis based on changes to these variables is shown below, and according to a 'worst case' example of cash flows (which is included in 'Annex 4b' of phase 2 application) moderate savings (around 10%) are possible even given a 25% decrease in demand combined with a 60% decrease in the number of households joining the project.

Variable	Impact on power price	Maximum change expected
Energy Wholesale Price (six month forward curve at time of signing supply contract)	Pass through of cost change	±0.8p/kWh
Lower than expected proportion of electrically heated customers	If <55% are electrically heated, price offered by Tempus will increase by 0.494p/kWh	<55% possible but not expected
Energy use per household is lower than that predicted by the model	20% drop in household consumption would result in increase of 0.5p/kWh	±33%
O&M Costs (MOP, DC/DA, Pre-payment and billing, and maintenance of DSM switching gear)	+£33/customer results in increase of 0.5p/kWh	±£30/customer
COSERCO Running Costs (staff, offices, external support)	+£22,200/year results in increase of 0.5p/kWh	±£20,000/year

#### Future demand and efficiency savings:

- The model assumes that residents of Dumbiedykes join the scheme in a phased way, i.e. 10% of total residents/demand in Dumbiedykes is purchased through the aggregated MPAN in the first year of the project, rising to 50% by the second year, and 100% (all 670 households) in the third and subsequent years. This is in line with the project work plan and milestones given elsewhere in the application.
- In general, it has been assumed that electricity demand will not significantly increase or decrease over the duration of the project, barring two known changes which will impact heating efficiency in the near future:
  - Edinburgh City Council’s external wall insulation programme: With most buildings already insulated, the remainder are due for completion within the next 5 years. Improved insulation has been factored into the original modelling, with verification measurements taken in buildings where the upgrades were already complete. Thus, the model should account for future insulation improvements.
  - Installation of new Quantum heaters: Evidence gathered by Edinburgh City Council suggests that these can increase heating efficiency by around 25%. Thus, a 25% reduction in heating demand in the 118 properties where upgrade is planned has been factored into the model.

## Work Package 3: Future Project Roll Out

### Introduction

After assessing the potential and value of the scheme its longevity needed to be assessed. Therefore, under this work package, we established the following aims:

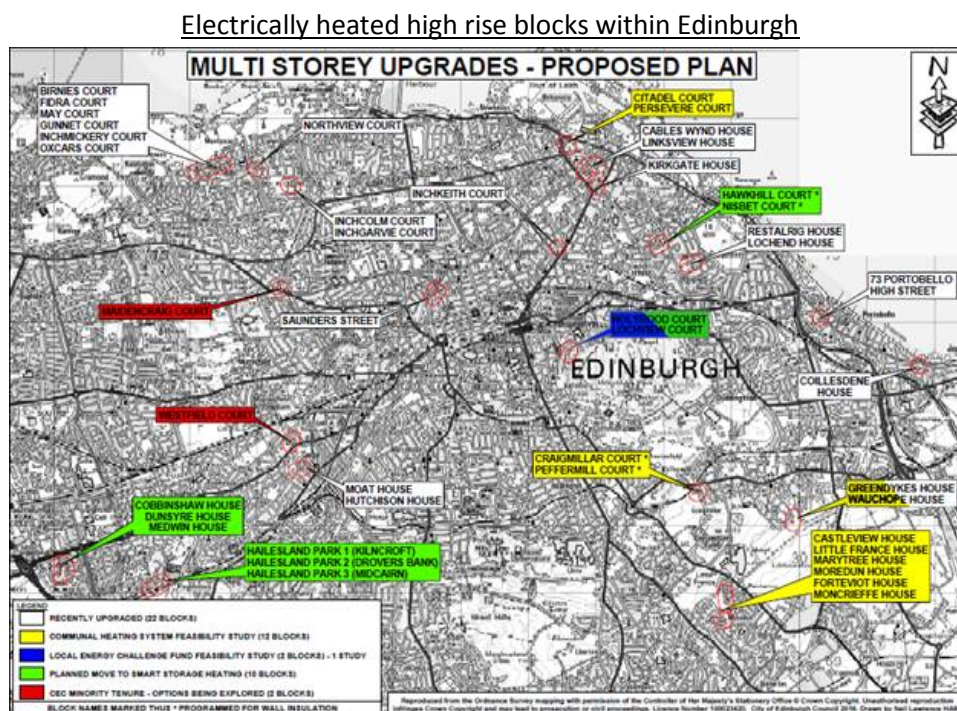
- Assess the feasibility for funding through LECF phase 2, and develop application
- Investigate match funding routes for LECF Phase 2 application
- Work with Edinburgh City Council to identify sites in the CEC geographic area where aggregation of local load would be beneficial

### Our Approach

- We have been successful in our application for LECF Phase 2 and have secured match funding routes (*for further information please refer to phase 2 application*)
- CES has worked closely with CEC on establishing potential sites over the last few months. They have provided a map of all multi-rise developments across the city and we have carried out an appraisal of these by looking at which sites have electric storage heating, are not earmarked for other heating solutions (e.g. district heating), have potential for RE generation (based on an earlier study carried out by Changeworks) and have an existing community presence.
- Glasgow City Council carried out a complete appraisal of the sites that they have signposted as likely for RE generation across the city and have looked in closer detail at areas that are sited close to multi-rise housing.

### Our Findings

- The figure below shows electrically heated high rise buildings within Edinburgh, with colour coding to show the City of Edinburgh Council's planned development of these heating systems from April 2016. In addition to Dumbiedykes (blue), buildings marked green and are potentially suitable for aggregation by residents. In total, the City of Edinburgh Council has identified 23 possible sites, 11 of which were confirmed as also having potential for solar PV in a Change Works report commissioned by the City of Edinburgh Council.



- Work with Glasgow City Council has identified a number of sites which, in addition to being suitable for aggregation, have the potential to link to ground mounted PV arrays planned within the council's development programme. At these sites, there is potential for the council and a local COSERCO to each take a stake in the new development; providing further cost savings for residents, and a more positive financial outlook for the renewable, which may be vital after recent subsidy cuts for medium scale PV.
- Feasibility work has been completed at three such sites, covering grid access, land rights and current usage, and total nearby demand. The figure below shows the location of the 200kW array recommended for one of these sites, with the housing visible just to the north.

Proposed array at one Glasgow site



<b>Scheme</b>	<b>200kW</b>
Annual Site Demand (kWh)	<b>295,495</b>
Annual generation per kW (kWh)	<b>900</b>
Annual generation (kWh)	<b>180,000</b>
Generation exported (kWh)	<b>89,632</b>
Export/Generation	<b>50%</b>
Generation used on-site (kWh)	<b>90,368</b>
On-site usage/Generation	<b>50%</b>
Equivalent total demand met by array	<b>31%</b>

## Work Package 4: Technology Assessment

### Introduction

In order to verify the technical aspects and costs of the scheme a technology assessment needed to be undertaken. Therefore under this work package, the aims were to:

- Using meter data collected as part of work packages 1 and 2, define specification for new aggregated MPAN including suitable communication systems
- Obtain a formal quote for the installation of metering equipment required for establishment of an aggregated MPAN, and for the cost of ongoing metering and registration services required to operate the aggregated MPAN
- Establish feasibility and additional costs for bundling communal broadband provision with installation of the aggregated MPAN

### Our Approach

- Liaison with City West Homes, a London based social housing provider on their operational aggregated MPAN shows that the technology exists, just never used in a mixed ownership setting as would be the case in Dumbiedykes
- Therefore we carried out detailed engagement with meter and communication providers to test model viability and gain project costs
- We've had ongoing communication with Elexon re the establishment of a complex site arrangement as a means of incorporation of onsite generation within an aggregated MPAN
- Site appraisals were carried out by Solar PV installers, meter installers, communication providers and SPEN

### Our Findings

- Using intelligence gathered during Phase 1, moving into Phase 2, a number of aggregated MPANs will be created, each covering around 200 households within a building or group of buildings with good internal communications linkage.
- Point to Point Communications will be used to create strong communications links buildings within the Dumbiedykes site.
- Based on learning from the City West homes site and three site visits with technology providers it has been determined that the communications mesh between meters will be strengthened Zigbee hubs, linked by an Ethernet spine: this spine will be particularly important in the two high rise blocks where structural concrete walls reduce the zigbee signal penetration.
- A site survey was carried out on 3rd January by CES and broadband installer R & A Group to assess wiring routes and cost for the Ethernet spine.
- Site surveys were also carried out on 6th August 2015 and 22nd October 2015 by CES and B Global Metering to assess suitability for aggregated metering. Zigbee signal penetration was tested, and cable routes identified for the Ethernet spine. The quotes are included alongside the Phase 2 application, and form the basis of the costs given in the project budget.
- Based on conversations with Tempus Energy Energenie MiHO014 Switching systems will be installed on electric storage heaters of participating members. This will allow our supply partner to take advantage of the half-hourly meter readings achieved through aggregation, and buy energy for members when it is cheapest. Other switching systems will be considered during procurement.

## Work Package 5: Incorporation of Local Generation

### Introduction

In order to analyse the potential of incorporating local generation into Phase two of the scheme, the aims of this work package were to:

- Gather detailed generation and demand profiles for GCC demonstrator
- Identify technological requirements for aggregation of the generator and demand at the GCC demonstrator through engagement with metering company
- Investigate, identify and characterise possible sites for further renewable generation
- Produce key findings report for integration of local generation covering technical requirements, process, costs and benefit analysis.

### Our Approach

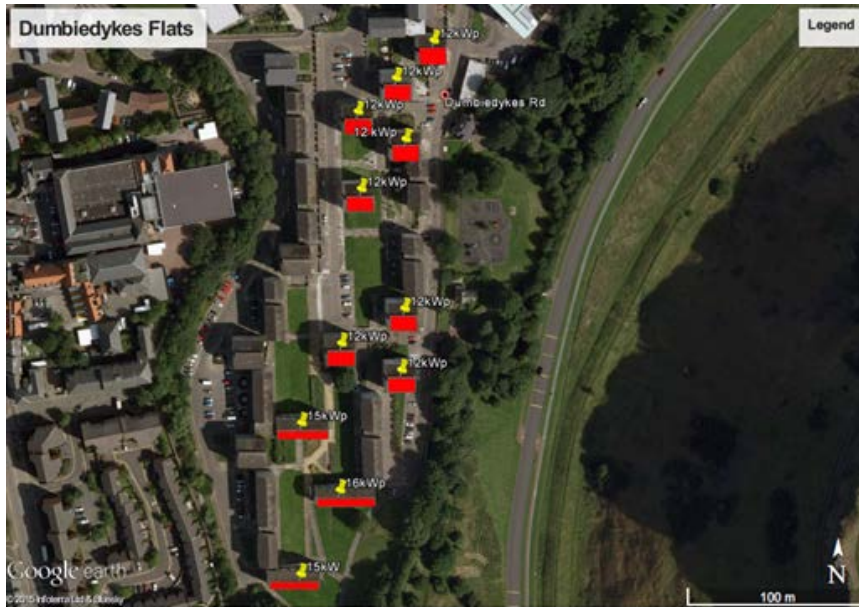
- A Solar PV survey was undertaken alongside ongoing consultation and investigation into both the GCC demonstrator and possible sites for renewable generation.

### Our Findings

- Establishing complex site metering arrangements between the Commonwealth Energy Centre (Glasgow) combined heat and power plant, and the Commonwealth Athletes village and Stadium across the road in Phase 2 will demonstrate a metering-level method for aggregation of half hourly commercial loads with nearby generation, where both are considered part of the same 'site'. For these provisions to apply the relevant meters must be physically and electrically extremely close, and under common ownership: one example of an established complex site being Edinburgh Airport.
- 'Complex site' has been used to refer to metering provisions within the balancing and settlement code, BSCP514: SVA Operation for Metering Systems, Version 30.0, with particular reference to section 8.4.8, pp 125-126, 'Network Flows Impacting Settlement'. These provide for netting of local generation against demand at a metering level, in certain circumstances; and in increasing potential for 'self use' of generation, could transform the economics of medium-scale renewables within residential areas. Learning from the establishment of a complex site at the Commonwealth Stadium and CHP will enable the development of PV at Dumbiedykes linked to aggregated demand with a similar complex site mechanism.
- Investigations during phase one of the project have established feasibility for this approach, with complex site provisions indicated likely to be applicable to this site in private correspondence between OFGEM and TMA (available on request), and initial positive discussions with SPEN on 04/02/16 on the application of a suitable line loss factor. TMA have submitted letters of support to accompany this application, and SPEN have agreed to discuss further should the project be funded.
- The image below was produced as part of the Solar PV site survey of Dumbiedykes carried out by Locogen on 24th November.
- PV capacity for south facing roofs in the western portion of tenement buildings was estimated at 92kWp.
- Including additional capacity in the eastern tenement blocks, plus 74kWp on the two high rise roofs, we have estimated the potential capacity for PV on all south facing roofs within Dumbiedykes is 319kWp.
- The project elected to begin with a significantly smaller scale of PV installation to avoid obstructing future improvements to insulation on the roofs of the high rise blocks, and to allow installation on tenement buildings to be scheduled to coincide with ongoing refurbishment works by the City of Edinburgh Council. This allows significant savings on PV installation costs, by utilising scaffolding and edge protection already in

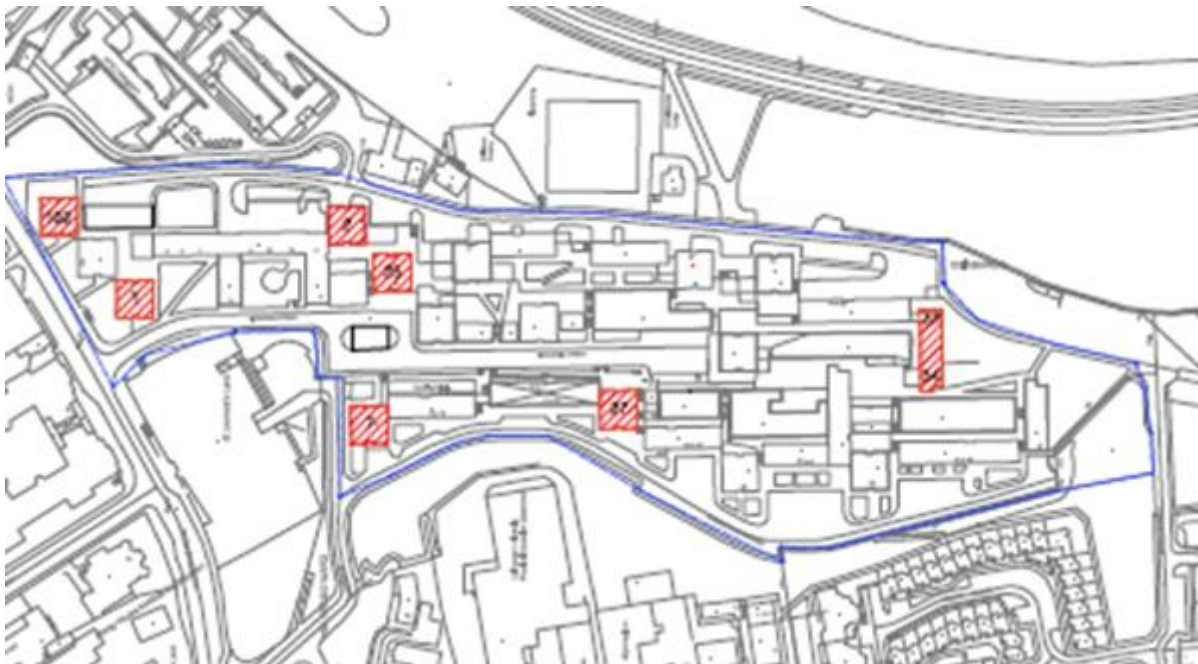
place for roof tile replacement. Correspondence from the City of Edinburgh Council’s buildings department indicating support for this approach is available on request.

PV capacity of south facing tenement roofs at Dumbiedykes



- The figure below is an excerpt from the City of Edinburgh Council’s refurbishment strategy, with the buildings due for external wall and roof insulation in 2016 marked in red. All have south facing roofs, with the potential to house between 12 and 16kWp solar PV. We plan to install 40kWp over three properties during phase 2 of this project, with the final locations being decided through gauging residents support through community consultation at each building. Depending on the results of this consultation, the final installed capacity may vary slightly however as these installation will be through a mixture of loan and/or community share offer, variation should not have a significant impact on the overall project budget.

Dumbiedykes Yr 15/16 Proposed External Fabric Upgrading Site Location Plan



- Initial financial analysis was carried out for a 40kWp array costing £50,400, 100% loan funded at 5% over 10 years. Income was based on the current feed in tariff rate, and self-use valued at the COSERCO sale price. Achieving close to 100% self-use through 'complex site' meter aggregation allows payback of 12 years, and a final cash balance of £93,000. The array would not be financially viable on an export-only basis; with large cash deficits in early years, and a payback period of over 20 years.
- To assess the feasibility of self-use, PV output was modelled using half hourly data from a comparable array in East Lothian, and scaled to reflect PV total installed capacity of 36kW; at the capacity factor of 10.12% estimated by Locogen based on site location, pitch, and orientation. Half hourly generation was then compared to estimated demand. According to this modelling, >99% self-use could be achieved through 'complex site' meter aggregation at a PV penetration of up to 0.36kWp PV per household, or >90% self-use achieved at up to 0.68kWp per household. At an average of 200 households per aggregated MPAN this equates to arrays of 72kWp or 137kWp per aggregated MPAN. There is clearly significant potential for self-use of PV within Dumbiedykes, provided 'complex site' meter aggregation can be established.
- The project objective of installing 40kWp PV at Dumbiedykes will comfortably allow 'complex site' aggregation to achieve >99% self-use, even with all 40kWp concentrated behind just one aggregated MPAN within the Dumbiedykes site. This will establish the business case for the COSERCO to finance the expansion of PV at Dumbiedykes after the conclusion of the funded project. Furthermore, work stream 9.5 of phase 2 will develop a revenue share agreement for auxiliary Demand Response services, providing a commercial basis for using load flexibility to match onsite renewable output, should the level of PV within an MPAN become high enough for a significant level of net export without such measures.

## 6. Business Model Development

### Introduction

In order for the scheme to succeed, and to advance successfully into Phase 2, an overall business model needed to be developed and established. Therefore, the aims under this work package were to:

- Define the needs of customers, advise on appropriate tariff structures and debt relief processes for non-payment
- Define a series of potential Community Supply business models; including 3<sup>rd</sup> party involvement, and legal structure of the license exempt ESCo
- Based on outcomes of other work packages, produce best practice Community Supply business model, where Local Authority supports and/or leads with input from tenants associations and residents
- Exchange learning with projects pursuing a related approach, contact communities and potential partner organisations which could benefit from an aggregated MPAN supply, and lay foundations for a roll-out to multiple locations should the pilot be successful

### Our Approach

- Through data gathered in work package 1, we were able to clearly define the need of individuals in the community, as well as the community collectively
- Work was undertaken in order to investigate Community Supply business models.

### Our Findings

#### Defining the need of customers

- Our community advisor has helped a number of community members ensure they are managing their energy as effectively and cheaply as possible, as well as help eradicate over £2,500 worth of energy debt in the community. Work is ongoing to help further community members

#### Community Business Model

*(Note: All work undertaken and information collected during phase 1 has contributed to the business model summarised in Annex 4 of the phase 2 application)*

The following information was gathered by Community Energy Scotland and details the considerations that were taken into account when establishing a Community Business model.

- **Background:** A COSERCO (Community Energy Service Company) could comprise a number of private and public sector partners, as well as local residents, who come together to deliver a range of integrated energy services. It should be clear what each partner wants from the project, with defined responsibilities of each partner and the risks involved.
- A community group wishing to set up a COSERCO would usually be driven by a need or demand. In this case it is the need to reduce electricity bills and alleviate fuel poverty for the residents of Dumbiedykes.
- The customer contract is likely state that the COSERCO guarantees a lower tariff for electricity and/or heat which means that if, for whatever reason, they are unable to deliver a lower tariff they risk having to pay for any additional costs.
- **Functions of the COSERCO:**
  - Purchase electricity in bulk at a wholesale price

- Supply electricity to domestic customers at a cheaper tariff than currently available
  - Generate and supply renewable electricity to domestic customers
  - Generate and supply heat to domestic customers
- **Carrying out the functions:** keep in mind that
- Customer's service needs vary; therefore service provision needs to be tailored to satisfy the particular market.
  - To successfully win the trust of customers the COSERCO will need excellent marketing and communication. In this instance for ease of billing and collections it makes sense for the COSERCO customers to be on pre-pay meters. There may be a degree of distrust of pre-pay meters because traditionally folk on pre-pay have suffered with higher tariffs. Good marketing and communication for the COSERCO will go a long way to convincing potential customers that the COSERCO will not operate pre-pay meters in this way.
- Electricity is one of life's essentials so any interruption to supply is a major issue for customers. The COSERCO will need to deal with customer enquiries such as:-
- I'd like to switch to the COSERCO as my electricity supplier?
  - I'd like to switch away from the COSERCO because I'm not happy with your service/pricing?
  - I don't have any electricity what's wrong?
  - I can't afford to buy credit can you help?
- Customers will expect to be able to contact someone and have their enquiries dealt with in a timely fashion. Something to bear in mind for potential board members is that they will be recognisable as COSERCO board members and may find themselves being approached at any time to answer peoples questions or listen to their issues.
- There will be a minimum number of customers at which point the company may no longer be viable so the COSERCO will need to understand and react to the potential for this situation to occur before it does. The COSERCO will need to be alert to the number of customers switching away to an alternative supplier and the reasons for switching
- The COSERCO will need to be aware of customers who do not buy credit or have very low bills in case they have found a way to circumvent the meter.
- **Role and responsibilities of COSERCO Directors and/or Staff:** A group wanting to set up a COSERCO needs to identify a clear 'offer' to potential customers, and the feasibility of generating income from that service (effectively a business plan). The community needs to be confident they have the capability and commitment to run a formal enterprise.
- The COSERCO will be reliant on a core of committed individuals and the directors may want to consider employing someone at an early stage to drive the project forward and to maintain progress and focus.
- The board of the COSERCO will be responsible for the overall direction and strategy of the project. Members of the board will typically require experience and knowledge of the following:
- dealing with and understanding finances
  - dealing with and understanding legal issues
  - working with council departments and other partners
  - understanding of tendering and procurement processes
  - understanding of the technical issues
  - working with local communities
  - marketing and communications
  - customer service enquiries/complaints
  - establishing policies and procedures for the COSERCO

- establishing formal supply contracts with customers
- This is by no means an exhaustive list and the amount of voluntary effort and long-term commitment to making the COSERCO work should not be underestimated.
- Some of this workload can be reduced by taking on employees from an early stage to develop and manage the COSERCO, but this must be done under the direction and supervision of the COSERCO board. Relevant expertise can be brought in short term to provide advice on legal, financial, technical and other issues but ultimately responsibility for decision and direction comes from the board so a basic understanding of the issues is required of the board.
- **Legal structure for the COSERCO:** There is no standard COSERCO model and as such a range of legal structures can be used.
- The aim of this COSERCO is to cut electricity costs to alleviate fuel poverty so it would seem appropriate that the legal structure used to set-up the company is not for profit and that the company is set-up for the benefit of the community. The table below, taken directly from a report prepared by Brodies LLP on behalf of Scottish Futures Trust in March 2015 titled Legal Guidance on establishing Energy Services Companies (ESCOs), outlines the various legal structures available and their suitability or not for an ESCO.
- It might be best to use the Company limited by guarantee or a Company limited by shares form as they are probably the most familiar and well used and possibly the simplest to operate.
- The reason behind using a co-operative type model would most likely be to allow for a community shares issue and in this instance that might not be appropriate.
- **Some examples of existing CESCOs:** It is worth noting that none of the existing CESCOs supply electricity direct to domestic consumers. Many do supply heat but the regulation on supplying heat is very different to that of supplying electricity. Also the main ethos behind existing CESCOs is not necessarily to make the energy bills cheaper but have green aims as the main driver.

The Table below sets out the various legal forms available and summarises their suitability for use as ESCOs  
 (From report Legal Guidance on establishing Energy Services Companies)

Type of Legal Form	Separate Legal Personality	Limited Liability	Suitability for Financing	Ability to Grant Security	Profit/Not for Profit	Flexibility (Ease of Exit)	Tax Transparent	Overall Suitability for use as a COSERCO
<b>Unincorporated Association</b>	No	No	No	No	Not for Profit	Yes	No	Unsuitable
<b>Trust</b>	No	No	No	Limited	Either	No	No	Unsuitable
<b>Scottish Charitable Incorporated Association</b>	Yes	Yes	Limited	Limited	Not for Profit	No	No	Unlikely to be suitable
<b>Co-operative Society</b>	Yes	Yes	Good	Full	For Profit	Yes	No	Potentially suitable for community schemes
<b>Community Benefit Society</b>	Yes	Yes	Limited	Full	Not for Profit	No	No	Potentially suitable for community schemes
<b>Ordinary Partnership</b>	Yes	No	Limited	Limited	For Profit	Yes	Yes	Unsuitable
<b>Limited Partnership</b>	Yes	Yes for ltd partners; no for the general	Limited	Limited	For Profit	Yes	Yes	Unsuitable
<b>Limited Liability Partnership</b>	Yes	Yes	Full	Full	For Profit	Yes	Yes	Suitable
<b>Company Limited by Shares</b>	Yes	Yes	Full	Full	Either	Yes	No	Suitable
<b>Company Limited by Guarantee</b>	Yes	Yes	Good	Good	Not for Profit	No	No	Suitable
<b>Unlimited Company</b>	Yes	No	Limited	Full	Either	Yes	No	Unsuitable
<b>Community Interest Company</b>	Yes	Yes	Limited	Full	Not for Profit	No	No	Potentially Suitable

## Summary of existing ESCOs

Organisation	Company structure	Who?	What?	How?
Fintry Community Energy <a href="http://www.fintrydt.org.uk">www.fintrydt.org.uk</a> -	Company Limited by Shares	Fintry Development Trust Local Community	Supply heat and power District heating scheme	Owns district heating scheme 3rd party operates district heating Arrangement with local generator Lower Distribution costs = lower tariff Facilitate group switch to licensed supplier
Bristol Energy <a href="http://www.bristol-energy.co.uk">www.bristol-energy.co.uk</a>	Company Limited by Shares	Bristol City Council company	Supply electricity & gas Re-invest profit in Bristol community	Bulk purchase Sell energy
Eigg Electric <a href="http://www.isleofeigg.net/eigg_electric.html">www.isleofeigg.net/eigg_electric.html</a> -	Company Limited by Shares	Isle of Eigg Heritage Tust Local Community	Generate and Supply electricity	Owns and operates generation Sells electricity to consumers License exempt private wire < 2.5MW
Meadows Ozone Energy Services <a href="http://www.mozes.co.uk/">www.mozes.co.uk/</a>	Company Limited by Guarantee	Local community Meadows Partnership Trust	Reducing energy bills Improving energy efficiency Generating a green energy supply in the city.	Advice Install PV & energy efficiency Interest free green loans
Plymouth Energy Community <a href="http://www.plymouthenergycommunity.com/">www.plymouthenergycommunity.com/</a>	Community Benefit Society	Local community Plymouth City Council	Reduce energy bills Improve energy efficiency Generate green energy	Advice Assistance Share offers
Brighton & Hove Energy Services Co-operative <a href="http://www.bhesco.co.uk/">www.bhesco.co.uk/</a>	Industrial & Provident Society	Local Community	Develop community energy projects Tackle fuel poverty Become a community energy supplier	Share offers Advice Switching partner Ecotricity
Ouse Valley Energy Services Company IPS <a href="http://www.ovesco-ips.co.uk/index.html">www.ovesco-ips.co.uk/index.html</a>	Industrial & Provident Society	Transition Town Lewes Local Community	Energy efficiency advice electricity supply fund for small-scale renewable energy Develop community-owned renewable energy	Advice Share offers

Financial Model: In terms of finance, the model will be self-sustaining by year 3 of the project (*please see below table*).

	Total 2016-2044 (£000)	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Yr 20	Yr 21	Yr 22	Yr 23	Yr 24	Yr 25	Yr 26	Yr 27	Yr 28	
<b>Revenues (+)</b>																														
MWh Electricity sold to members MWh/ yr	18,972.5	53.2	271.5	553.8	564.9	576.2	587.7	599.5	611.5	623.7	636.2	648.9	661.9	675.1	688.6	702.4	716.4	730.8	745.4	760.3	775.5	791.0	806.8	823.0	839.4	856.2	873.3	890.8	908.6	
FIT payments for PV generated onsite MWh/ yr	41.8	0.0	0.7	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.0
Other revenue / yr: Broadband charges	394.8	5.4	11.0	11.2	11.5	11.7	11.9	12.2	12.4	12.7	12.9	13.2	13.4	13.7	14.0	14.3	14.5	14.8	15.1	15.4	15.7	16.0	16.4	16.7	17.0	17.4	17.7	18.1	18.4	
<b>Total revenue</b>	<b>19,409.1</b>	<b>58.6</b>	<b>283.2</b>	<b>566.6</b>	<b>577.9</b>	<b>589.4</b>	<b>601.2</b>	<b>613.2</b>	<b>625.5</b>	<b>638.0</b>	<b>650.7</b>	<b>663.7</b>	<b>677.0</b>	<b>690.5</b>	<b>704.3</b>	<b>718.3</b>	<b>732.7</b>	<b>747.3</b>	<b>762.2</b>	<b>777.5</b>	<b>793.0</b>	<b>808.8</b>	<b>825.0</b>	<b>841.5</b>	<b>858.3</b>	<b>875.4</b>	<b>892.9</b>	<b>909.5</b>	<b>927.0</b>	
<b>Capital/ investment costs (-)</b>																														
Component 1: Metering Installations	-170.8	-45.9	-124.9																											
Component 2: Community Broadband	-60.0	-60.0																												
Component 3: Solar PV Installations	-40.0		-40.0																											
Component 4: New Heaters	-354.0	-237.2	-116.8																											
Component 9: Switching and debt management	-30.0	-20.0	-10.0																											
<b>Total capital/ investment costs</b>	<b>-654.8</b>	<b>-363.1</b>	<b>-291.7</b>																											
<b>Operating Costs (-)</b>																														
Electricity imported (overall demand of customers - power produced by the solar PV) MWh/ yr	-16,151.7	-45.6	-230.8	-470.8	-480.3	-489.9	-499.7	-509.8	-520.0	-530.4	-541.1	-552.0	-563.0	-574.3	-585.9	-597.6	-609.6	-621.9	-634.3	-647.1	-660.1	-673.3	-686.8	-700.6	-714.7	-729.0	-743.7	-761.3	-778.0	
CES Staff Support	-273.4	-160.1	-113.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMAS Staff Support	-168.3	-77.9	-90.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glasgow City Council Support	-57.0	-25.1	-31.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tempus Energy Support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operating costs 1: COSERCO Staff hours	-2,003.4	0.0	0.0	-59.5	-60.7	-61.9	-63.1	-64.4	-65.7	-67.0	-68.3	-69.7	-71.1	-72.5	-74.0	-75.5	-77.0	-78.5	-80.1	-81.7	-83.3	-85.0	-86.7	-88.4	-90.2	-92.0	-93.8	-95.7	-97.6	
Other operating costs 2: COSERCO external support	-336.7	0.0	0.0	-10.0	-10.2	-10.4	-10.6	-10.8	-11.0	-11.3	-11.5	-11.7	-12.0	-12.2	-12.4	-12.7	-12.9	-13.2	-13.5	-13.7	-14.0	-14.3	-14.6	-14.9	-15.2	-15.5	-15.8	-16.1	-16.4	
Other operating costs 3: Metering fees	-155.6	-4.2	-4.3	-4.4	-4.5	-4.5	-4.6	-4.7	-4.8	-4.9	-5.0	-5.1	-5.2	-5.3	-5.4	-5.5	-5.7	-5.8	-5.9	-6.0	-6.1	-6.2	-6.4	-6.5	-6.6	-6.8	-6.9	-7.0	-7.2	
Other operating costs 5: Broadband fees	-376.2	-13.7	-13.7	-13.7	-10.5	-10.7	-10.9	-11.1	-11.3	-11.6	-11.8	-12.0	-12.3	-12.5	-12.8	-13.0	-13.3	-13.5	-13.8	-14.1	-14.4	-14.7	-14.9	-15.2	-15.6	-15.9	-16.2	-16.5	-16.8	
<b>Total operating costs</b>	<b>-19,522.4</b>	<b>-326.6</b>	<b>-484.3</b>	<b>-558.4</b>	<b>-566.1</b>	<b>-577.4</b>	<b>-589.0</b>	<b>-600.8</b>	<b>-612.9</b>	<b>-625.2</b>	<b>-637.7</b>	<b>-650.5</b>	<b>-663.6</b>	<b>-676.9</b>	<b>-690.5</b>	<b>-704.3</b>	<b>-718.5</b>	<b>-732.9</b>	<b>-747.6</b>	<b>-762.6</b>	<b>-777.9</b>	<b>-793.5</b>	<b>-809.4</b>	<b>-825.6</b>	<b>-842.2</b>	<b>-859.1</b>	<b>-876.3</b>	<b>-896.6</b>	<b>-916.0</b>	
<b>Cash flow before finance and taxation (+ / -)</b>	<b>-768.1</b>	<b>-631.0</b>	<b>-492.8</b>	<b>8.2</b>	<b>11.8</b>	<b>12.0</b>	<b>12.2</b>	<b>12.4</b>	<b>12.6</b>	<b>12.8</b>	<b>13.0</b>	<b>13.2</b>	<b>13.4</b>	<b>13.6</b>	<b>13.8</b>	<b>14.0</b>	<b>14.2</b>	<b>14.4</b>	<b>14.7</b>	<b>14.9</b>	<b>15.1</b>	<b>15.3</b>	<b>15.6</b>	<b>15.8</b>	<b>16.1</b>	<b>16.3</b>	<b>16.6</b>	<b>12.9</b>	<b>11.0</b>	
<b>Finance during construction (+)</b>																														
Local Energy Challenge Fund grant	709.9	385.0	324.8																											
Other grants	0.0																													
Local Energy Challenge Fund loan	40.0		40.0																											
Other bank loan	0.0																													
Equity investment/ existing project monies (i.e. cash)	354.0	237.2	116.8																											
In kind contribution valued as Comas shop use	0.0																													
In kind contribution valued as Comas staff time	0.0																													
In kind contribution valued as COSERCO match funding (15% sales revenue)	0.0																													
In kind contribution valued as GCC 35% contribution to staff costs	19.9	8.8	11.2																											
In kind contribution valued as CES staff time	0.0																													
<b>Total financing</b>	<b>1,123.8</b>	<b>631.0</b>	<b>492.8</b>																											
<b>Cash flow available for debt service</b>	<b>355.7</b>	<b>0.0</b>	<b>0.0</b>	<b>8.2</b>	<b>11.8</b>	<b>12.0</b>	<b>12.2</b>	<b>12.4</b>	<b>12.6</b>	<b>12.8</b>	<b>13.0</b>	<b>13.2</b>	<b>13.4</b>	<b>13.6</b>	<b>13.8</b>	<b>14.0</b>	<b>14.2</b>	<b>14.4</b>	<b>14.7</b>	<b>14.9</b>	<b>15.1</b>	<b>15.3</b>	<b>15.6</b>	<b>15.8</b>	<b>16.1</b>	<b>16.3</b>	<b>16.6</b>	<b>12.9</b>	<b>11.0</b>	
Local Energy Challenge Fund loan repayment (interest and principal)	-54.3	0.0	0.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>Net cash flow for saving/ dividends &amp; equity repayment (+ / -)</b>	<b>301.3</b>	<b>0.0</b>	<b>0.0</b>	<b>2.8</b>	<b>6.4</b>	<b>6.6</b>	<b>6.8</b>	<b>6.9</b>	<b>7.1</b>	<b>7.3</b>	<b>7.5</b>	<b>7.7</b>	<b>7.9</b>	<b>13.6</b>	<b>13.8</b>	<b>14.0</b>	<b>14.2</b>	<b>14.4</b>	<b>14.7</b>	<b>14.9</b>	<b>15.1</b>	<b>15.3</b>	<b>15.6</b>	<b>15.8</b>	<b>16.1</b>	<b>16.3</b>	<b>16.6</b>	<b>12.9</b>	<b>11.0</b>	

7. Annex – Community Member Survey

Date

Workers



# 20 More Membership Form

Comas is a charity. Everything we do is to help the community, not commercial companies.

Your information is completely safe—we will not pass it on to the Council, the Benefits Agency or any companies. We store it safely on locked computers Comas staff can access when they are helping you. Is it okay to do this? Yes/No



First Name

Last Name

M/F



First names and ages of people living with you, so they can join 20 More with you—we include children so they can get benefits too. We also include pets!



House Number

Building / Street



Do you have an email address? Yes / No    Do you have broadband in your house? Yes/No  
If not, do you want broadband if it was affordable? Yes/No



If you are okay with us sending you emails about bargains in the shop or other things we are doing, please tell us your email address:

If you have broadband, who is your provider?



Is this part of a TV package? Yes/No    Does a landline phone come with that? Yes/No

We may be able to get cheaper deals for local people, would you mind telling us how much you pay per month so we have a benchmark of what would be cheaper for you? £\_\_\_\_\_



Do you have a phone ? Yes / No    Do you have a mobile? Yes/No

If want us to send you texts about bargains in the shop or other things we are doing, please tell us your number:

If you have a landline not with broadband, who is your provider?

How much do you pay for the landline (if not with Broadband)?



If you have a mobile, who is your provider?    Pay As You Go / Contract

We may be able to get cheaper deals for local people, would you mind telling us how much you pay per month so we have a benchmark of what would be cheaper for you?

£\_\_\_\_\_ per month    How many free texts?    How many minutes free calls?

How much internet?    Do you use it all?



Have you / people living with you got everything you need to live comfortably in your home right now? We will try to help you get what you need to live:

- Enough beds  Notes
- Enough bedding  Notes
- A cooker that works  Notes
- Pots, plates, cutlery  Notes
- Something to sit on  Notes
- A fridge  Notes
- Enough heaters  Notes
- Enough clothing  Notes
- Enough food each day?  Notes
- Any other needs you want to tell us about?



How are you heating your home right now?

- Central heating  Electric  Gas
- Gas heaters: Calor  Mains Gas fire
- Electric heaters: convector  bar fire  oil radiators  Fan heater  Halogen
- Storage heaters  If you use storage heaters, do you use Economy 7 (off peak)
- How do you heat hot water? Central heating  Immersion  Economy 7

What do you use in the bathroom?

- Shower off the immersion  Instant shower  Shower off central heating
- Bath off the immersion  Bath off central heating

How do you cook: Gas  Electric

Office use: meter type/serial no:

Who is your electricity provider?

Who is your gas provider?

Do you have a pre-paid meter? Gas  Electric

How much do you pay per month? Gas \_\_\_\_\_ Electric \_\_\_\_\_

Do you have enough heating to be comfortable? Yes/No

Do you ever run out of power? Yes/No How long before you can top up?

Any heating / power issues you want to tell us about?

Did you claim the Warmer Homes payment last winter? Yes/No

Would you like us to see if you are eligible for this next winter? Yes/No



What are your big items of expenditure we might be able to help with?

Food £ \_\_\_\_\_ week/month      Transport £ \_\_\_\_\_ week/month  
 Rent £ \_\_\_\_\_ week/month      Council tax £ \_\_\_\_\_ week/month  
 Childcare £ \_\_\_\_\_ week/month      House insurance £ \_\_\_\_\_ week/month  
 Savings £ \_\_\_\_\_ week/month      Car £ \_\_\_\_\_ week/month

Anything else?

Are there any other costs we might be able to help you cut down?

Smoking

Old debts / Paying off HP

Do you want to tell us more about this?

What was the item

Who are you paying off?

How much / week?

Since when?



Are you claiming any benefits just now?

Housing benefit £ \_\_\_\_\_ / week or month

Council tax discount £ \_\_\_\_\_ / week or month

Child benefit £ \_\_\_\_\_ / week or month

Working tax credit £ \_\_\_\_\_ / week or month

JSA £ \_\_\_\_\_ / week or fortnight

ESA £ \_\_\_\_\_ / week or fortnight

DLA or PIP £ \_\_\_\_\_ / month

Carers Allowance £ \_\_\_\_\_ / week or fortnight

Any other benefits?

Would you like us to check if you are eligible for benefits or are everything you are entitled to? Yes / No

Are you: Student  Self employed  Retired  Full time parent

Employed part time  how many hours? \_\_\_\_\_ Full time

Unemployed / want to work  Unemployed / not ready for work



Are you happy with your living conditions? Yes/No

If not, what are you unhappy about?

Are you:

A private tenant arranged by yourself

A PSL tenant (in private accommodation but placed by the Council)

A Council tenant

An owner



How long do you think you will continue living here?

How long have you lived here until now?



On a scale of 0 (not happy) to 10 (Very happy) how happy are you to be living here?

\_\_\_\_\_

What would make you happier?



Are you interested in using our golf buggy pilot scheme to get around the scheme or to the bus stop or shops? Yes/No

On the subject of transport, do you have a Bus concession pass? Yes/No

Do you have a mobility problem? Yes/No

What are your ideas about how we could help people in Dumbiedykes?

Do you have any hobbies or interests?

Interested in:

Shop volunteering

Community development

Personally saving money

Training to help others to save money

Support for employment or enterprise

Learning /training

Do you want us to pass on your contact details to other organisations or services who might be able to help you? Name and address  Phone Number  Email  **Signed/ Initials**