

# Cabinet



Forest Heath  
District Council

<b>Title of Report:</b>	<b>Developing a Community Energy Plan</b>	
<b>Report No:</b>	<b>CAB/FH/14/010</b>	
<b>Decisions plan reference:</b>	<b>Dec14/03</b>	
<b>Report to and dates:</b>	<b>Cabinet</b>	9 December 2014
	<b>Council</b>	10 December 2014
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<b>Purpose of report:</b>	<p>To put forward investment proposals to develop a Community Energy Plan based on an appraisal of options for renewable energy generation.</p> <p>This report summarises the business case and makes recommendations regarding the viable options which, if approved, would establish for the first time a long term energy investment plan generating stable revenue and energy cost savings for the Council alongside its existing support for improved community energy efficiency. This would form the West Suffolk Councils' Community Energy Plan.</p>	

<b>Recommendation:</b>	<p><b>It is <u>RECOMMENDED</u> that:</b></p> <ul style="list-style-type: none"> <li><b>(1) the development of a West Suffolk Community Energy Plan, be supported;</b></li> <li><b>(2) appraisal of other energy-related options set out in the report with a view to receiving further investment proposals, be supported;</b></li> <li><b>(3) subject to the approval of full Council, the following be allocated:</b> <ul style="list-style-type: none"> <li><b>(a) £15,000 to continue the West Suffolk Greener Business Grant in support of energy efficiency improvements, as outlined in paragraphs 1.1.4 and 1.1.5 of Report No: CAB/xxx;</b></li> <li><b>(b) £500,000 to improve business resource efficiency and install the next phase of solar schemes on Council property (Option 1), as outlined in Appendix A to Report No: CAB/xxx;</b></li> <li><b>(c) as part of the 2015/2016 budget setting process, £1.62 million over three years to develop rent-a-roof solar schemes in partnership with local businesses (Option 3), as outlined in Appendix A to Report No: CAB/xxx; and</b></li> <li><b>(d) as part of the 2015/2016 budget setting process, £50,000 to cover the identification, detailed feasibility and associated community engagement activities in support of potential sites for larger scale solar and renewable energy generation technologies (Options 5 and 8) where supported and/or led by communities in the District, as outlined in paragraph 1.3.5 to Report No: CAB/xxx.</b></li> </ul> </li> </ul>
<b>Key Decision:</b>  <i>(Check the appropriate box and delete all those that <b>do not</b> apply.)</i>	<i>Is this a Key Decision and, if so, under which definition?</i> No, it is not a Key Decision - <input checked="" type="checkbox"/>
<i>The decision made as a result of this report will be published within <b>48 hours</b> and cannot be actioned until <b>seven working days</b> have elapsed. This item is included on the Decisions Plan.</i>	
<b>Consultation:</b>	See paragraphs 3.1-3.4
<b>Alternative option(s):</b>	See paragraph 4.1

<b>Implications:</b>			
Are there any <b>financial</b> implications? If yes, please give details		Yes <input checked="" type="checkbox"/> See paragraphs 5.1-5.5	
Are there any <b>staffing</b> implications? If yes, please give details		Yes <input checked="" type="checkbox"/> See paragraphs 6.1-6.2	
Are there any <b>ICT</b> implications? If yes, please give details		No <input checked="" type="checkbox"/>	
Are there any <b>legal and/or policy</b> implications? If yes, please give details		Yes <input checked="" type="checkbox"/> See paragraphs 7.1-7.3	
Are there any <b>equality</b> implications? If yes, please give details		Yes <input checked="" type="checkbox"/> See paragraphs 8.1-8.3	
<b>Risk/opportunity assessment:</b>		<i>(potential hazards or opportunities affecting corporate, service or project objectives)</i>	
<b>Risk area</b>	<b>Inherent level of risk</b> (before controls)	<b>Controls</b>	<b>Residual risk</b> (after controls)
Financial - The projects do not achieve the predicted financial returns	High	Conservative assumptions made. Industry advice has been sought in developing the financial models. Project investment will be tightly controlled to achieve highest Feed-In Tariffs, or cease project investment should Government cut the tariffs to make the financial model unsustainable	Medium
Legal - Gain permissions and licences to operate	High	Seek legal advice before progressing options	Medium
Economic – lack of market demand	Medium	Carry out soft market testing. Refine the offer and go to test market again before launching	Low
Technological – Complexity of the technologies	Medium	Initial focus is on a mature, low technological risk.	Low
Community – Public concern. Lack of effective engagement and communication to explain and win support	High	Develop an engagement and communications plan	Medium
<b>Ward(s) affected:</b>		All Ward/s	
<b>Background papers:</b> <i>(all background papers are to be published on the website and a link included)</i>		None	

**Documents attached:**

**Appendix A:** Outline of the options considered

**Appendix B:** Summary of the options appraisal

**Appendix C:** Budget Consultation – Additional public focus group summary of findings August 2014

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## **1. Key issues and reasons for recommendation(s)**

### **1.1 Heading**

1.1.1 In the recently published Community Energy Strategy, the Secretary of State for Energy and Climate Change has called on local authorities to provide the stimulus and support to community renewable energy. The Government has also re-iterated its policy on solar energy that it wishes to see the "Big 6" energy companies become the "Big 60,000" with community-owned solar. Government sees local authorities as key to this "democratisation" of the energy supply.

1.1.2 Every Council in England has a responsibility under the Home Energy Conservation Act, alongside wider health and wellbeing responsibilities, to tackle fuel poverty and help households become more energy efficient. Through our participation in the Suffolk Climate Change Partnership, Forest Heath District Council has been able to help local households, communities and businesses access independent advice and support to make sustainable energy choices<sup>1</sup>, reduce the impact of energy cost volatility and move from fossil fuels.

1.1.3 Forest Heath District Council has already demonstrated leadership by:

- Improving energy efficiency and achieving a 40% reduction in carbon emissions by 2014 compared to a 2008 baseline
- Installing 185kWp<sup>2</sup> of renewable energy generation on its own property
- Publishing its Home Energy Conservation Act Plan setting out the help the Council will provide to help householders insulate their homes
- Actively participating in initiatives including the Warm as Toast and Suffolk Energy Action insulation programmes and the multi-award winning Suffolk Warm Homes Healthy People winter fuel poverty project
- Supporting and promoting community and business support services provided by Suffolk Climate Change Partnership offering Greener Business Grants to small and medium sized businesses to assist them become more energy efficient and save money.

Excluding officer time, all the community-focussed initiatives are delivered at an annual revenue cost to the Council of £17,000.

1.1.4 Improvements in energy efficiency deliver immediate savings generally with short financial paybacks. In addition, achieving certain levels of building energy efficiency is a requirement for the highest renewable energy tariffs. Since its launch in 2011, the West Suffolk Greener Business Grant has contributed to the improvement in efficiency of 62 businesses in West Suffolk from a pot of £60,000 provided by West Suffolk Local Strategic Partnership. The performance of this fund is set out in Table 1.

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<sup>1</sup> Alongside help provided by the Council, examples of what is available includes energy efficiency advice for small and medium-sized business through the Suffolk Environmental Business Advisor and Suffolk Carbon Leaders, domestic insulation programmes through Suffolk Energy Action and community energy support from the Suffolk Community Advisor – [www.greensuffolk.org](http://www.greensuffolk.org)

<sup>2</sup> kWp – kilowatt peak – the generating capacity of the installation

Number of businesses supported	Amount granted	Predicted value of energy savings to the businesses		Predicted CO <sub>2</sub> savings	
		Annual	Over the expected lifetime of the measures	Annual	Over the expected lifetime of the measures
62	£46,165	£52,500	£827,000	220 tonnes	4,150 tonnes

Table 1 – West Suffolk Greener Business Grant

The fund has been used by businesses to match-fund either their own capital or other funds, for example Grants for Growth funded by the European Regional Development Fund.

1.1.5 It is proposed, therefore, that as part of the broader support to business the Council allocates £15,000 to top up the grant pot. A similar amount will be sought from St Edmundsbury Borough Council so that the grant can continue to be offered to help local businesses cut costs by becoming more energy efficient which in return will support our strategic priority to stimulate economic growth across West Suffolk.

1.1.6 By combining our current energy efficiency work with a renewable energy investment programme the Council would be able to fulfil the following outcomes:

- A long term, sustainable source of revenue for the Council
- Households, businesses and communities in West Suffolk which are less reliant on fossil-based energy
- Locally-owned renewable energy generation to the benefit of the local taxpayer.

1.1.7 With St Edmundsbury, this can form the basis of a West Suffolk Community Energy Plan comprising:

- Continued support to residents to insulate their homes and improve energy efficiency – delivered through our participation and promotion of Suffolk Energy Action and other schemes as they become available
- Continued support to vulnerable residents during the winter – delivered under the Suffolk Warm Homes Healthy People programme
- Continued resource efficiency advice and support to businesses and communities – delivered through our participation in the Suffolk Climate Change Partnership
- Subject to Council approval, continued capital funding to improve business energy efficiency – using the West Suffolk Greener Business Grant to unlock other capital within the business or from elsewhere
- Subject to Council approval, capital financing of renewable energy in the community.

## 1.2 **Options Appraisal**

1.2.1 Following informal discussion with cabinet members over the summer and autumn, officers have undertaken an options appraisal of a range of renewable energy generation opportunities in order to develop a business

case for the renewable energy investment programme. The appraisal has focussed on solar photovoltaics (Solar PV) since the technology is now mature in the UK market and has a relatively low technological risk.

1.2.2 The following options have been considered in the appraisal:

- 1 Developing more solar on Council property
- 2 Developing a "rent-a-roof" solar scheme for homes
- 3 Developing a "rent-a-roof" solar scheme for local business
- 4 Buying an operational solar farm
- 5 Building a new solar farm
- 6 Buying electricity from a local solar farm
- 7 Brokering investment in renewable energy on behalf of local communities
- 8 Other renewable energy technologies.

A description of each option and an outline of the appraisal findings are given in Appendix A.

1.2.3 A summary of the options appraisal is set out in Appendix B. The options appraisal shows that there are opportunities to develop a portfolio designed to deliver the outcomes set out in 1.1.6.

### **1.3 Proposals based on the findings from the options appraisal**

1.3.1 The option to buy an operational solar farm (Option 4) may be reported separately to Cabinet should it prove a viable option.

1.3.2 It is recommended that the council approves the proposal to develop more solar on council property (Option 1) and a rent-a-roof scheme for local businesses (Option 3).

1.3.3 Further market research is required on the option to develop a rent-a-roof scheme for homes (Option 2) and the option to broker investment in renewable energy on behalf of local communities (Option 7). A future report will be sent for Cabinet to consider on these two options.

1.3.4 In addition the options an "Invest-to-save" proposal is included for energy efficiency improvement to the Guineas Car Park lighting which is not included within existing budgets or the Council's Repair and Maintenance Programme provisions.

1.3.5 It is estimated that the total cost to develop a solar farm site (Option 5) eligible to the Feed-In Tariff (up to 5MW capacity) would be in the region of £5 to £6 million. At this time, no feasible sites have been identified.

1.3.6 It is recommended that a feasibility and community engagement fund of £50,000 is established in order to develop viable community-supported or led renewable energy schemes (Options 5 and 8) which meet the outcomes set out in 1.1.6. Any viable business cases will be presented in a future report.

1.3.7 Based on a capital investment of £2.12m and assuming lower end returns and upper end costs, the viable options could deliver potential revenue of

£206,000 per annum in Year 1, moving towards £290,000 per annum in Year 10. This Feed-In Tariff component would be index-linked over a 20 year period. The predicted Internal Rate of Return from this investment has been calculated and presented in this report BEFORE taking account of loan interest and principal repayment BUT after taking account of operating costs. Taken together, the proposals are close to achieving the 10% investment threshold of the Council's Medium Term Financial Strategy. Additional value will be gained where the energy is used onsite, displacing grid supply.

1.3.8 Initial analysis is also underway of the potential opportunities that arise from renewable heat technologies such as Anaerobic Digestion and biomass (Option 8). These are now supported through the Renewable Heat Incentive and can generate commercial returns in the region of 15% compared to around 8-10% for solar PV. Renewable heat technologies also make a significant carbon saving contribution given that most of the energy used in buildings is for heating and cooling. The findings of this options appraisal will be presented in a future report.

1.3.9 A summary of the costs and financial returns of each option is presented in the Table 2. These exclude the additional value to the consumer of any tariff discount which the Council may be able to offer.

Option	Capital cost	IRR <sup>3</sup>	Revenue/Saving after operating costs	
			Year 1	Year 10
Improve energy efficiency	£75,000 <sup>4</sup>	21%	£25,000	£38,000 <sup>5</sup>
<b>Option 1</b> Develop more solar on council property	£425,000	9.3%-10.0%	£37,000	£51,000
<b>Option 3</b> Develop a "rent-a-roof" solar scheme for local businesses	£1.62 million over three years (£540,000 pa)	9.75%	£144,000 (by year 3)	£201,000
<b>Total</b>	<b>£2.12 million</b>	<b>-</b>	<b>£206,000</b>	<b>£290,000</b>

Table 2 – Investment returns

1.3.10 Investing in the viable options would open up associated opportunities and benefits for both the Council and local communities:

- Energy generation in community ownership – the initial delivery model is based on the Council being the primary investor. The Council could retain ownership or look to develop a shared ownership model whereby individuals or community groups take an investment stake
- Sell electricity to local consumers – where energy generation is at a business or community building as in the Option 3, the electricity could be sold for use on site

<sup>3</sup> an indicator of the net benefits expected from a project over its lifetime, expressed as a percentage comparable to the interest rates

<sup>4</sup> The total scheme cost is £100,000 with the remaining £25,00 already funded from a S106 agreement

<sup>5</sup> Assuming 5% per annum indexation of energy costs



- Invest revenue from renewable energy into the community – it would be a sound approach to follow UK Government advice to allocate some of the surplus for initiatives like local energy efficiency measures or supporting the running costs of community buildings in the locality
- Energy security and carbon savings – the proposed options, if developed, would make a significant impact in both cases.

1.3.11 By developing an investment programme, the Council will be in a strong position to be able to offer householders and local businesses an integrated energy advice and support service through our work with the Suffolk Climate Change Partnership. This would also help support inward investment by helping communities and businesses gain more effective access to support funding like the Energy Companies Obligation, Grants for Growth and Rural Community Energy Fund.

## **2. Additional supporting information**

2.1 The proposals bring together economic, social and environmental benefits by:

- Delivering sustainable, long term financial benefit for the Council to achieve its Medium Term Financial Strategy
- Showing community leadership by helping to deliver legally-binding national targets to reduce greenhouse gas emissions and to generate more electricity from renewable energy
- Developing wider economic benefits, for example by using local suppliers during the construction phase, and supporting local businesses taking up energy efficiency and renewable energy
- Helping local communities access low cost energy.

2.2 Option 7 may, when fully evaluated, allow the Council to establish an electricity tariff offer to local residents.

2.3 The New Anglia Local Enterprise Partnership is leading nationally on the green economy. These proposals support this aspiration and could in the longer term allow local businesses take economic advantage from the energy savings that may accrue, while some may move into the energy sector to build a local supply chain.

## **3. Consultation**

3.1 Although no formal consultation has been undertaken on the options, informal discussions have been held with a range of potential stakeholders to gather information to assess each option and test the market.

3.2 Feedback from budget consultation public focus groups held in Newmarket and Mildenhall during August 2014 revealed a range of views about renewable energy generation; these are presented in Appendix C. There are public concerns about renewable energy in general and solar in particular. The options appraisal has identified the risks raised and taken into consideration the views that were expressed during the consultation. Any specific schemes will need, therefore, to be sympathetic to these risks and concerns.

3.3 Should the Council approve any of the options, an engagement and

communications plan will be put together. This will support any formal consultations required by the planning process should any larger schemes be brought forward.

- 3.4 Several of the options can be delivered with our partner, St Edmundsbury Borough Council. A separate report will be considered by St Edmundsbury's members and should both Councils approve the proposals, discussions will be held with internal and external stakeholders to shape the shared delivery model.

#### **4. Alternative option**

##### **4.1 Doing nothing**

Lack of investment capital has been cited as a block to householders, communities and business taking action to improve energy efficiency and uptake of renewable energy generation themselves. This block would continue to hold back our communities and businesses if the Council chose not to support the opportunities presented in this report.

#### **5. Financial implications**

- 5.1 The predicted financial returns to the Council are summarised in 1.3.9. The revenue from the Feed-In Tariff is index-linked according to OFGEM-approved contracts for 20 years while electricity will continue to be developed so long as the panels remain operational. The viable options are predicted to generate stable, long term revenue which would contribute to meeting the Council's Medium Financial Strategy.
- 5.2 In addition, local communities and businesses partnering with the Council could receive discounted electricity, enhancing the overall value of the projects. Typically, it is considered that electricity from roof-mounted solar could be offered at a tariff at least 10% cheaper than the current grid offer.
- 5.3 It is difficult to predict long-term trends of energy prices. The demand for energy is probably the single most significant factor affecting price. UK Government predicts that average domestic dual fuel bills, for example, will increase by 18% in real terms between 2010 and 2020<sup>6</sup>. Other energy commentators are predicting higher increases and significant price volatility for domestic and commercial energy consumers.
- 5.4 The ability to hedge against electricity price volatility could be advantageous to the Council; this may be possible through developing a portfolio of energy generation schemes. Prices could be linked to a less volatile index compared to market prices for electricity, allowing the Council and participating businesses the ability to plan their utility budgets with more confidence.
- 5.5 The Council may need to borrow in order to finance the majority of these proposals and the most likely source of external financing would be prudential borrowing which is currently available at a rate of approximately 3.5%. These investments have been assessed against the Internal Rate of Return needed to cover borrowing. However, the Council's Treasury Management

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<sup>6</sup> Energy Prices -Standard Note: SN/SG/4153 House of Commons Library. 31 January 2014

activities will determine when the Council will actually need to enter into external borrowing.

## **6. Staffing implications**

- 6.1 Should the proposals be approved, there will be pressure placed on the Council's capacity and technical capability to deliver, particularly with larger more complex schemes. However, the financial models supporting the options incorporate an allocation of resources (staff and operational budget) for the management of the projects should they be taken forward.
- 6.2 Subject to Council approval, a project delivery team will be put together which will move any proposals that are viable forward to the point of delivery. Once schemes are operational, the size and nature of this team will be kept under review to ensure that it reflects the resources required and financial returns generated.

## **7. Legal and policy implications**

- 7.1 The Council has the power to generate and sell electricity and heat as described in this report by virtue of the Local Government (Miscellaneous Provisions) Act 1976 (as amended in 2010).
- 7.2 Legal advice has been sought to establish whether any of the options would require a trading company to be established. Furthermore, there may be circumstances where a special purpose vehicle may be required, for example where a joint venture is the best approach to delivering one of the viable options. With the exception of Option 4, neither of these structures is likely to be needed at the initial stages of developing any of the options. However, these may be required at a later date. Advice has, therefore, been sought to understand the costs and benefits including taxation implications.
- 7.3 The proposals contribute positively to all three of the Council's strategic priorities as outlined previously.

## **8. Equality implications**

- 8.1 An initial screening Equalities Impact Assessment has been undertaken which has determined that there will be no differential impact on any diversity group arising from the proposals.
- 8.2 The proposals could deliver financial value to the Council which would benefit local communities in the District; directly where larger scale community-led or supported renewable energy could be developed further; and indirectly with the revenue reducing the Council Tax burden.
- 8.3 In the longer term, where excess energy generation can be exported to the grid, the Council could explore the development of a social electricity tariff, which could be offered to households struggling to afford their energy bills.

## Appendix A – Outline of the options considered

### Option 1: Developing more solar on Council property

Council properties have been identified which could accommodate the next phase of solar installations. At the same time, an energy efficiency improvement has been identified for which there is no funding in the Council’s Property Maintenance programme. A “without commitment” procurement process has been undertaken; the financial and carbon savings are set out in Table 1.

Site/item	Capital investment	Annual income/Savings for the Council <sup>7</sup>		IRR for the Council	Estimated value to the tenant(s) (Year 1)	Estimated CO <sub>2</sub> saving
		Year 1	Year 10			
Newmarket Leisure Centre – Solar PV	£122,000	£10,500	£15,000	9.9%	£1,500	15 tonnes
Brandon Leisure Centre – Solar PV	£121,000	£10,500	£15,000	10.0%	£1,500	15 tonnes
Hampstead Road, Mildenhall – Solar PV <sup>8</sup>	£91,000	£8,000	£10,500	9.3%	£600 <sup>9</sup>	12 tonnes
Putney Close, Brandon – Solar PV	£91,000	£8,000	£10,500	9.3%	£600 <sup>2</sup>	12 tonnes
Guineas Car Park – lighting upgrade	£75,000 <sup>10</sup>	£25,000	£38,000	21%	-	100 tonnes
<b>Total</b>	<b>£500,000</b>	<b>£62,000</b>	<b>£89,000</b>	<b>-</b>	<b>£4,200</b>	<b>154 tonnes</b>

In addition to the financial returns for the Council, it will be possible to offer any generated electricity to the tenant under contract at a cheaper rate than they currently pay for grid supplied electricity.

### Option 2: Developing a “rent-a-roof” solar scheme for homes



Larger housing developers are arguing that renewables jeopardise the viability of development. A potential solution could be that the local authorities in effect rent the roof space to install solar panels on new built homes, taking the Feed-In Tariff while the homeowner saves energy so reducing their bill.

<sup>7</sup> The Feed-In Tariff is index linked over 20 years.

<sup>8</sup> Initial investigation identified Gregory Road business units in Brandon. However, the timetable for refurbishment has made Hampstead Road, Brandon a more attractive proposition

<sup>9</sup> This saving would be spread across all tenants receiving solar-generated electricity

<sup>10</sup> The scheme cost is estimated at £100,00 with £25,000 funding remains in S106 agreement with Waitrose

Economies of scale would be achieved and much of the procurement risk would be transferred since it would be for the developer, rather than the Council, to use its buying power and supply chain. The Councils would also have the ability potentially to set local employment conditions by negotiation with the developers.

To date, informal discussions have been held with, amongst others a major utility connection company a local housing association and a local authority already offering the scheme to its residents, to understand whether a model is viable.

**Option 3: Developing a “rent-a-roof” solar scheme for local business**



One of the barriers to businesses installing renewable energy technologies is access investment capital. Using its prudential borrowing, the Councils could work with local businesses by investing in a solar installation on their building. The Council would receive the Feed-in Tariff and the business would be supplied the generated electricity at a cheaper rate through some form of roof rental agreement.

The rent-a-roof offer would be open to all businesses across the district although to ensure value for money, it would be necessary to apply eligibility criteria. This would include technical criteria relating to the size, type and design of the host building and criteria regarding the ownership of the building and business electricity use.

Market research has shown that there is interest from businesses, although this may be limited by technical aspects, like business energy profile and building characteristics, the appetite of the key decision makers in the business and the level of financial return that could be offered.

Based on the appraisal, it is considered that the equivalent of three to five medium scale (150KWp) schemes could be progressed a year. For budgeting purposes, it has been assumed that the equivalent of three medium scale schemes could be advanced each year over a three year period. The predicted financial investment and returns are set out below.

Year	No. of schemes developed each year	Capital investment	IRR	Annual income for the Council	
				Year 1	Year 10
1	3	£540,000	9.75%	£48,000	£67,000
2	3	£540,000	9.75%	£48,000	£67,000
3	3	£540,000	9.75%	£48,000	£67,000
<b>Total</b>	<b>9</b>	<b>£1.62 million</b>	<b>9.75%</b>	<b>£144,000</b>	<b>£201,000</b>

#### **Option 4 – Buying a solar farm**

The option to buy an operational solar farm may be reported separately to Cabinet should it prove a viable option.

#### **Option 5 – Building a new solar farm**



Solar farms are normally operated for 20-25 years under financial contracts approved by the energy regulator, OFGEM. The financial return would comprise of two principal components. Firstly, income would be generated through the Feed in Tariff (FIT) guaranteed by the Government for a 20 year period. However, the panels will continue to generate electricity so a 25 year revenue model has been used. Unlike other commercial projects the solar farm would not have to build and maintain a market share to secure its income.

Secondly, the Council would sell generated electricity via a licensed electricity supplier under agreement to consumers. In addition, the Council could arrange for the generated electricity to be allocated as its own use, in effect buying its own electricity. This could be achieved at a lower unit rate than buying grid electricity, delivering further savings.

UK Government has stated in its Community Energy Strategy<sup>11</sup> that “By 2015 it should be the norm for communities to be offered the opportunity of some level of ownership by commercial developers.” Government recommends that commercial developers of on-shore wind farms, for example, should provide a community benefits package worth £5,000 per MW of installed capacity annually for the lifetime of the installation. Similarly, the Council would wish to see the local community benefit financially if it became the host of a Council-owned solar farm.

UK Government wants to see all local authorities showing leadership to help deliver community energy projects. The Council could be the developer and initial investor while local communities could become investor/owners in time through share rights and crowd funding to raise the capital. This could allow the community to use the electricity to offset their use and make them more energy resilient.

#### **Findings of the options appraisal**

At this time, no viable sites have been identified.

However, research under this appraisal shows that the total cost to develop a site eligible to the Feed-In Tariff (5MW) would be in the region of £5.7 million of which

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<sup>11</sup> Community Energy Strategy – people powering change. Department of Energy and Climate Change 27<sup>th</sup> January 2014

the cost to gain planning permission would be around £100,000. The predicted Year 1 revenue is in the region of £500,000 before taking account of loan interest and principal repayment BUT after taking account of operating costs.

The Community could benefit from such a scheme:

- Through a community benefit fund based on the generation capacity of the scheme;
- Becoming owners of the scheme by investing to generate a dividend
- By the Council developing a mechanism to sell the electricity to the community.

This option clearly raises significant issues beyond the financial return, the key being the trust that needs to be ensured between the Council and the various parts of the local community in which such a development would be located. Given our community-led approach, imposing such a development could potentially de-stabilise community relations and adversely affect relationships with the Council. Furthermore, such a development would need to be understood in the context of other community initiatives, underway or in development.

It is proposed that a fund be established to cover the identification, detailed feasibility and associated community engagement activities in support of potential sites for larger scale solar where supported and/or led by communities in the District.

#### **Option 6: Buying electricity generated by a local solar farm**

The Council has considered buying the electricity generated by the local solar farm referred to in Option 4. The company has offered the Council at a rate which could realise cost savings as well as a carbon-neutral electricity supply.

However, this option would leave the Council open to significant financial challenge by other suppliers under public sector procurement rules. It has, therefore, been concluded that this risk outweighs any financial benefit.

#### **Option 7: Brokering investment in renewable energy on behalf of local communities**

Community energy schemes are one of the most effective ways of getting people engaged with energy issues. Energy companies are starting to offer support to communities to develop a package of energy-related benefits.

One company, OVO Energy<sup>12</sup>, offers four key elements to energy projects developed for the benefit of the local community:

- energy supply - set up their own supply business, from front to back office, from trading to marketing
- smart metering - customers will be able to see real time energy usage, which can be used to compare portfolios of homes to identify the most energy efficient or inefficient properties
- energy efficiency – companies are offering funding through the Energy Companies Obligation
- Power generation - can buy energy from local generators.

This offer is available to local authorities; appropriately scaled schemes have yet to be identified. Option 7 may, when fully evaluated, allow the Council establish an electricity tariff offer to local residents.

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<sup>12</sup> <http://www.ovoenergy.com/blog/2013/11/community-owned-energy/#sthash.EnTW0x2D.dpuf>

**Option 8: Other renewable energy technologies**

Initial work is underway and where viable proposed schemes will be brought forward for consideration.



## Appendix B – Summary of the options appraisal

	Work stream	Evaluation	Key risks	Recommendation/reason
1	Developing more solar on Council property	<p><b>VIABLE PROJECT</b></p> <p>The project is technical feasible and predicted to deliver a viable rate of return as well as benefitting tenants with cheaper electricity.</p> <p>Subject to approval the work would be programmed for completion by March 2015.</p> <p>Sites proposed:</p> <ul style="list-style-type: none"> <li>• Brandon Leisure Centre#</li> <li>• Newmarket Leisure Centre</li> <li>• Business units at Putney Close, Brandon and Hampstead Road, Mildenhall</li> </ul> <p>In addition, there is an invest-to-save opportunity by upgrading the lighting at the Guineas car park.</p>	<p>Failure to gain political support</p> <p>Poor performance of system</p> <p>Failure to complete all permissions and approvals</p> <p>Feed-In Tariffs not secured/or delayed</p> <p>Financial returns not achieved</p>	<p><b>Recommendation:</b></p> <p>Cabinet seeks Council approval to invest £497,000 to improve energy efficiency and install the next phase of solar schemes on Council property.</p> <p><b>Reason:</b></p> <p>To generate an investment return and deliver energy savings</p>
2	Developing a “rent-a-roof” solar scheme for homes	<p><b>VIABLE PROJECT TO BE DETERMINED</b></p> <p>Further research required. Initial findings indicate that new build development could be potentially viable but existing homes not.</p> <p>Discussions with a housing developer and utilities infrastructure provider suggest that a viable model could be developed which would generate acceptable investment returns for the Council while giving households the generated electricity at no cost.</p>	<p>No market demand.</p> <p>Failure to negotiate legal permissions</p> <p>Financial model does not stand up following market testing.</p> <p>Failure to gain political support</p>	<p><b>Recommendation:</b></p> <p>A further report be considered by Cabinet following further research and market testing by your officers</p> <p><b>Reason:</b></p> <p>To fully understand the approach and its merits</p>
3	Developing a “rent-a-roof” solar scheme for local	<p><b>VIABLE PROJECT</b></p> <p>Potential market would be owner occupiers of larger sized industrial buildings in the District.</p>	<p>Failure to gain political support</p> <p>Not gaining permission to lease the roof</p>	<p><b>Recommendation</b></p> <p>Cabinet seeks approval to invest £1.62 million over three years to install solar on eligible local businesses</p>

	business	<p>Feasibility and soft market testing has been undertaken completion. A small potential market exists based around free installation of solar PV by the Council offering either a rental payment or discounted electricity for the building owner.</p> <p>Initial interest has been shown by three third parties with large scale opportunities.</p>	<p>Capital costs above target price for PV</p> <p>Poor performance of system</p>	<p><b>Reason</b></p> <p>To generate an investment return and support local economic growth</p>
4	Buying an operational solar farm	<p><b>VIABILITY TO BE DETERMINED</b></p> <p>THIS OPTION IS THE SUBJECT OF A SEPARATE REPORT TO CABINET</p>	See separate Cabinet report	See separate Cabinet report
5	Building a new solar farm	<p><b>VIABILITY TO BE DETERMINED</b></p> <p>No viable sites have been identified during this appraisal.</p> <p>However, research has shown that there is potential if a community led or supported site came forward where the Council could support through investment.</p> <p>The Council would be eligible for 20 year Feed-In-Tariff contract. In addition, the site will continue to generate and be able to sell electricity after the end of the FIT contract, enhancing the return on investment above the quoted IRR.</p> <p>Legal advice confirms that the Council would be able to sell the electricity via the grid to ourselves so improving the viability of the site.</p> <p>Community engagement on any selected site will be paramount to ensure community</p>	<p>Failure to gain political support</p> <p>Network access cost found to be prohibitive</p> <p>Delays during planning affecting cost model</p> <p>Locality/community support</p> <p>Failure to gain permissions</p>	<p><b>Recommendation:</b></p> <p>Develop a fund to cover the identification, detailed feasibility and associated community engagement activities in support of potential sites</p> <p><b>Reason:</b></p> <p>To generate renewable energy to the benefit of the District and the local community</p>
6	Buying	<b>NOT VIABLE AS A SOLE OPTION</b>	See separate Cabinet report	THIS OPTION IS THE SUBJECT OF A

	electricity from a local solar farm			SEPERATE REPORT TO CABINET
7	Brokering investment in renewable energy on behalf of local communities	<p><b>VIABILITY TO BE DETERMINED</b> Initial investigation has shown that the principle opportunity centres on selling electricity to a licensed electricity company.</p> <p>The Council would need to develop a portfolio of generating sites for it to be worthwhile progressing this opportunity.</p> <p>Further investigation is still required to confirm or understanding across the market.</p>	<p>No market demand.</p> <p>Financial model does not stand up following market testing.</p> <p>Failure to gain political support</p>	<p><b>Recommendation:</b> A further report be considered by Cabinet following further research and market testing by your officers</p> <p><b>Reason:</b> To fully understand the approach and its merits</p>
8	Other renewable technology opportunities	<p><b>VIABILITY TO BE DETERMINED</b> Biomass heating/Anaerobic Digestion: Further investigation is still required to confirm opportunities and understanding across the market.</p> <p>Renewable Heating and Power: The Mildenhall Hub project has been identified as a major significant opportunity to invest with partners in renewable energy to develop a site which is both self-sustaining in energy and generates a viable rate of return using the Feed-In Tariff and Renewable Heat Incentive.</p> <p>Further feasibility is required. The Government is currently offering support funding for feasibility studies via its Heat Networks Delivery Unit. The latest tranche of funding is available based on competitive applications</p>	<p>No market demand or viable feedstock</p> <p>Financial model does not stand up following market testing.</p> <p>Failure to gain political support</p>	<p><b>Recommendation:a)</b> A further report on the opportunities be considered by Cabinet following further research and market testing by your officers</p> <p><b>b)</b> A bid be submitted to the Government's Heat Networks Delivery Unit and any findings be incorporated into the business case for the Mildenhall Hub</p> <p><b>Reason:</b> To fully understand the approach and the merits of Renewable Heat</p>

## **Appendix C: Budget Consultation – Additional public focus group summary of findings August 2014**

During August 2014, two public focus groups were held in Mildenhall and Newmarket to consider various options relating to budget savings and income generation.

### ***Rent a roof schemes on new developments***

Agreement in principle that investing in renewable energy on new developments is a good idea.

One participant raised concerns regarding the council trying to cut expenditure but then taking out a loan which would increase expenditure. Both groups discussed the council borrowing money and agreed that the council would '*have to invest to get money back in the long term*' although the risks to this were recognised. It was felt that public sector investments in the past have cost more than anticipated and that this could affect the amount that the council would need to borrow.

Questions were also raised about who would own the panel and maintain it, or carry out repairs. There were also queries in both groups as to how much longer the feed-in tariff would be available from the Government and that this uncertainty represents a risk.

### ***Rent a roof schemes on business premises***

Compared this scheme with solar panels on new developments and all agreed that this was a better idea as there are sites available.

The group discussed the cost of energy for householders and for businesses. They agreed that energy is more costly for a business; therefore this scheme would be preferred as it will have a larger impact.

Agreement that by installing solar panels on business premises the council will attract businesses to the area, increasing economic growth and the number of jobs.

### ***Council-community solar farm***

Whilst it is a good idea to involve the community, the Newmarket group felt that there was no low grade land available. Both groups discussed their concerns regarding solar farms and agreed that they are unsightly and a planning application would definitely be opposed by residents. The Mildenhall group felt that available land should be used for other purposes, such as housing. Suggestion that solar panels be placed on lamp posts.