

West Suffolk Joint Growth Group

Forest Heath & St Edmundsbury councils

West Suffolk
working together

Title of Report:	West Suffolk Community Energy Plan - Update	
Report No:	JGG/JT/17/002	
Report to and date:	West Suffolk Joint Growth Steering Group	6 June 2017
Portfolio holders:	Councillor Alaric Pugh SEBC Portfolio Holder for Planning and Growth Tel: 07930 460899 Email: Alaric.pugh@stedsbc.gov.uk	Councillor Lance Stanbury FHDC Portfolio Holder for Planning and Growth Tel: 07970 947704 Email: lance.stanbury@forest-heath.gov.uk
Lead officer:	Peter Gudde Service Manager (Environmental Health) Tel: 01284 757042 Email: peter.gudde@westsuffolk.gov.uk	
Purpose of report:	To update West Suffolk Joint Growth Group on progress towards delivering the West Suffolk Community Energy Plan, as approved by the West Suffolk Councils in December 2014 (and as amended in Spring 2016).	
Recommendation:	That the Steering Group are requested to note the contents of the report.	
Key Decision: <i>(Check the appropriate box and delete all those that do not apply.)</i>	<i>Is this a Key Decision and, if so, under which definition?</i> Yes, it is a Key Decision - <input type="checkbox"/> No, it is not a Key Decision - <input checked="" type="checkbox"/>	
Consultation:	See background reports	
Alternative option(s):	See background reports	
Implications:		
<i>Are there any financial implications? If yes, please give details</i>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <ul style="list-style-type: none"> A separate report for consideration by the Cabinets of Forest Heath District Council and St Edmundsbury Borough Council sets out proposals to extend existing approved capital provision to support energy-related investment 	

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	opportunities where they are in line with the agreed financial returns and strategic objectives.		
<i>Are there any staffing implications? If yes, please give details</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
<i>Are there any ICT implications? If yes, please give details</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
<i>Are there any legal and/or policy implications? If yes, please give details</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
<i>Are there any equality implications? If yes, please give details</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Risk/opportunity assessment:	<i>(potential hazards or opportunities affecting corporate, service or project objectives)</i>		
Risk area	Inherent level of risk (before controls)	Controls	Residual risk (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 support Tariffs, or cease project investment should Government cut the tariffs to make the financial model unsustainable	Medium
Legal – Unable to 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 gain support	High	Develop an engagement and communications plan	Medium
Ward(s) affected:	All Wards		
Background papers: <i>(all background papers are to be published on the website and a link included)</i>	CAB/SE/14/009 dated 2 December 2014 COU/FH/14/011 dated 10 December 2014 CAB/SE/16/016 dated 29 March 2016 CAB/FH/16/014 dated 5 April 2016		

Documents attached:

(Please list any appendices.)

Appendix 1 - Community Energy Plan
Operational Delivery

Appendix 2 - Summary of financial
performance of our roof-mounted
solar portfolio

1. Key issues and reasons for recommendation(s)

1.1 Background

1.1.1 West Suffolk councils are committed to a sustainable energy policy to help manage growth, support existing communities and attract more investment. In December 2014, the councils approved investment in a West Suffolk Community Energy Plan (reports CAB/SE/14/009 dated 2 December 2014 and COU/FH/14/011 dated 10 December 2014 refer). The shared aim is that all in West Suffolk are able to make sustainable energy choices, reduce the impact of energy cost volatility and move from fossil fuels.

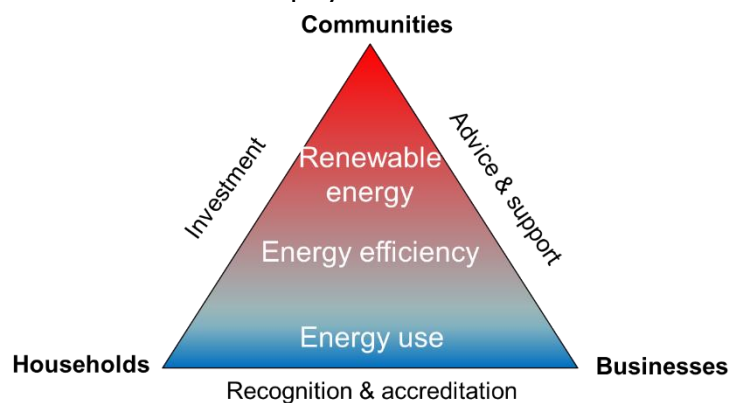
1.1.2 Under the Community Energy Plan, the councils have been working to combine current energy efficiency initiatives with a renewable energy investment programme to be able to fulfil the following outcomes:

- A long term, sustainable source of revenue for the Councils
- 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.

1.1.3 The councils take both strategic and operational delivery perspectives to community energy since we recognise the importance of energy both to the wellbeing of our residents and to the long term economic future of West Suffolk.

1.1.4 The councils prepared a plan to provide a coherent, comprehensive model to help current and future householders, communities and businesses in West Suffolk. Our approach to Community Energy comprises (also shown graphically below):

- Support to residents to insulate their homes and improve energy efficiency
- Support to vulnerable residents during the winter to keep warm and well
- Resource efficiency advice and support to businesses and communities
- Capital financing to improve energy efficiency and develop renewable energy in West Suffolk – through local investment to deliver savings and generate real value to the taxpayer.



2. Progress on strategic delivery

2.1 For strategic growth in West Suffolk to be successful, new development needs to be assured of sustainable energy supplies. Therefore, we are ensuring that

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UK Power Networks (UKPN) are part of key stakeholder discussions during strategic planning proposals and more generally as part planning strategic growth for the long term. This work supports the merging Suffolk Strategic Planning and Infrastructure Framework as we bring forward strategic growth in locations where the power grid needs upgrading to be able to cope with energy demand created by new homes and businesses.

- 2.3 We are also in discussion with those with an interest in energy supply, distribution and use in our area to explore opportunities where strategic growth could help to address some of the existing constraints on the grid. These include exploration of the technical and commercial viability of new technologies such as battery storage. We have also initiated discussions with UKPN and others to develop the electric charging network as part of a long term plan to support the electrification of transport.
- 2.4 We are taking into consideration emerging Central Government policy, in particular the Housing White Paper, "Fixing the broken housing market" and the consultation Green Paper, "Building our Industrial Strategy". The outcome of both are likely to have profound effects, from an energy perspective, on the homes that we live in and economic growth in our region over the coming years.
- 2.5 We are working to develop ambitious new facilities as part of our approach to asset management, linked to the Government's One Public Estate Programme, to rationalise and improve the public estate in West Suffolk for the benefit of local people. Specifically, two proposed schemes, the Mildenhall Hub and Western Way masterplan, are being designed to take advantage of the latest energy efficiency and renewable energy technologies to reduce the operational cost of the new facilities and where viable develop investment return. During 2016-17, studies have been undertaken for each site from which business cases for investment will be prepared in 2017-18 for approval by the respective councils.
- 2.6 We have built relationships with both the energy regulator Ofgem and the Government department responsible for energy policy, BEIS, so that we are better placed to provide them with local, practical knowledge and experience about the challenges that local authorities, communities and businesses face with respect to energy pricing and local supply.

3. Progress on operational delivery

- 3.1 We continue to work to enable households, communities and businesses to help themselves to improve energy efficiency and develop renewable energy generation to their benefit. Progress is set out in Appendix 1.
- 3.2 Through our energy efficiency work, we estimate that participating households, businesses and communities are likely to save in excess of £199,000 annually off their energy bills. The domestic energy projects alone are estimated to have brought in over £941,000 of inward investment to West Suffolk, much of the work continuing to be delivered by locally-based, vetted installers.
- 3.3 Our energy generation initiatives during the year have included investment in solar photovoltaics (PV) and biomass heating which generated around

£203,000 of income and offset 432 tonnes of the greenhouse gas, Carbon Dioxide (CO₂), equivalent to the annual power consumed by 285 homes. A breakdown is shown in Table 1. Financial performance of the solar portfolio is summarised in Appendix 2.

	Typical generation each year		Equivalent household electricity use ¹		Avoided CO ₂ arising from Solar generation each year ²	
FHDC	481,100	kWh	130	homes	197	tonnes
SEBC	572,050	kWh	155	homes	235	tonnes
West Suffolk	1,053,150	kWh	285	homes	432	tonnes

Table 1: Outcomes of our investment in roof-mounted solar

3.4 In July 2016, Forest Heath District Council purchased Toggam Solar Farm which, at 12.4MW (megawatts), is believed to be the largest local authority-owned solar farm in England. Over the last year, the solar farm has generated around 11 million kWh, enough electricity to power 3,000 homes and offset CO₂ emissions from 2,000 cars.

3.5 Since the approval of the original Community Energy Plan investment programme in 2014 (updated in 2016), the opportunities for investing in energy-related initiatives available to the councils have expanded further. A range of “horizon” projects have, therefore, been taken forward. These include:

- Investigating opportunities for developing the electric vehicle charging infrastructure in West Suffolk and use of electric vehicles
- Combining solar and battery storage to increase use of the power
- Investigating renewable heat and power generation with such technologies like Combined Heat and Power, biomass and Anaerobic Digestion.

Investment in these new opportunities will either be subject to approval of specific business cases or be part of the councils’ existing capital programme.

¹ Estimate based on latest Ofgem published figures <https://www.ofgem.gov.uk/gas/retail-market/monitoring-data-and-statistics/typical-domestic-consumption-values>

² Based on published conversion factors for grid electricity consumption <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2016>

Appendix 1: Community Energy Plan - Operational delivery

Households

	Progress in 2016-17	Plans for 2017-18
<p>Energy use and energy efficiency</p>	<p>With our partners, we deliver Suffolk Energy Action, a service that provides funding (through utility and third party financing) and advice for energy efficiency home improvements.</p> <p>Ninety-eight households in West Suffolk received energy efficiency measures through this scheme during 2016-17; these included loft and cavity wall insulation.</p> <p>We continued to offer, under our Housing Assistance Policy, grants to reduce the excess cold hazard in residents homes. These grants are in addition to actions we take to ensure that private rented homes do not have an excess cold hazard, and where enforcement is available if necessary’.</p> <p>We worked with our partners to target homes which are difficult to insulate because of their construction. The principal funded measure was external solid wall insulation. Over the project period, 156 households in West Suffolk received solid wall insulation, attracting over £700,000 of inward investment to support participating households. Households are projected to save around £40,000 annually through the improved energy efficiency of their homes. The properties will also feel warmer in cold weather.</p> <p>We also targeted homes which lacked central heating, particularly in off-gas grid communities. 39 households in West Suffolk received heating systems, attracting £241,000 of inward investment to support participating households. Households are projected to save around £37,000 annually through having more energy efficient heating.</p> <p>Our Warm Homes Health People service aims to help reduce the risk of cold-related illness or early death in vulnerable residents living in cold homes. During 2016-17, eighty-nine households in West Suffolk received in-the-home energy survey and advice while 59 households received energy efficiency improvement measures; these included boiler or storage radiator replacements.</p>	<p>We will continue to promote energy efficiency to householders through Suffolk Energy Action and support vulnerable households through the Warm Homes Healthy People service.</p> <p>We will work with our partners, including other local authorities in the Suffolk Climate Change Partnership, to identify further funding opportunities for domestic energy efficiency including active participation to bring inward investment for home insulation via the Energy Company Obligation.</p> <p>We are reviewing the current policy and grant offer to ensure the funding is most effectively used to meet our purpose and will seek to pool resource where appropriate, with other types of grant on offer to our residents, to increase uptake and protect residents from cold homes.</p>

Renewable energy	The West Suffolk councils continued to support households through signposting and advice working within the Suffolk Climate Change Partnership.	We will continue to help households with advice and support to install renewable technologies where appropriate.
Recognition & Accreditation	We support the Suffolk Green Buildings Network to promote environmentally sustainable construction and building management. Sixty-seven case studies have been published of which 7 are based in West Suffolk.	We will continue to support the Suffolk Green Buildings Network and will look to identify and showcase innovation in West Suffolk
BUSINESSES		
Energy use and energy efficiency	<p>Our partner, Groundwork East of England provide free resource efficiency audits businesses and social enterprises. During the year, 42 businesses have been supported in West Suffolk with potential annual energy bill savings of around £190,000 with around 1,000 tonnes of CO₂ savings identified. Based on previous projects, it is anticipated that approximately one quarter of these savings will be realised which represents around £49,000 of bill savings annually.</p> <p>Our West Suffolk Greener Business Grant helps small businesses cut energy and carbon and save money by providing support funding to invest in simple energy and resource efficiency measures. Fourteen Greener Business Grants were approved in 2016-17 to the grant value of £11,300. These measures are projected to save annually around £7,350 off business energy bill savings with predicted CO₂ savings of 30 tonnes.</p>	In addition to continuing the services offered last year, we are piloting a business energy financing service using a specific arrangement called an Energy Performance Contract, where the Council funds and installs energy saving measures in a host business with the investment paid back through the energy bill savings. This will be launched during 2017-18 dependent on the success of the pilot.
Renewable energy	<p>We provide our "Solar for Business" service which installs solar panels on businesses who receive the generated energy at a discount compared to grid electricity. We now own and operate 18 solar installations hosted either on Council tenanted property or third party organisations. A further 7 installations are planned for imminent completion. Value is shown in Appendix 2.</p> <p>We have piloted a renewable heat service modelled on Solar for Business. The first biomass heating installation was completed in March 2017 at the National Home of Horse Racing Museum in Newmarket. The scheme cost £108,000 delivering cost savings of around £1,300 annually to the museum while giving Forest Heath District Council an investment return of around 9% with a payback of around 9 years over a 20 year project life.</p>	We will continue to promote our Solar for Business offer as well as extend the Renewable Heat for Business service.

Recognition & Accreditation	<p>We promote the Suffolk Carbon Charter which recognises carbon reduction measures in businesses and not-for-profit organisations. The West Suffolk councils promote and support the Charter and gained pathfinder partner status in 2015 in recognition for the unrivalled support that we provide.</p> <p>Thirty-five organisations hold charter status with 3 businesses successfully gaining accreditation in 2016-17.</p>	<p>We will continue to promote the Suffolk Carbon Charter during 2016-17.</p>
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COMMUNITIES

Energy use and energy efficiency	<p>As part of our county-wide partnering, the Suffolk Community Energy Advice Service, we are able to provide our communities advice on energy saving measures and renewable energy. During the year, fifteen West Suffolk communities received advice and help to obtain grant and other funding for projects such as heating, lighting upgrades and renewable energy schemes.</p> <p>We have continued to promote the Greener Business Grant to eligible community organisations. During the year, seven community-based organisations were awarded grants for energy efficiency measures.</p>	<p>We will establish a programme of targeted promotion of the Suffolk Community Energy Advice Service to local communities.</p> <p>We will continue to promote the Greener Business Grant to community organisations.</p>
Renewable energy	<p>See above.</p>	
Recognition & Accreditation	<p>See Communities.</p>	

WEST SUFFOLK COUNCILS OWN BUILDINGS AND OPERATIONS

Energy use and energy efficiency	<p>Significant projects completed in 2016-17 included:</p> <ul style="list-style-type: none"> • Replacement roof glazing in the Haverhill Leisure Centre sports hall and new insulated roof covering to the sports hall at Newmarket Leisure Centre • New insulated roof coverings in commercial property at Gregory Road in Mildenhall, Craven Way in Newmarket, Hollands Road Haverhill and Bunting Road in Bury St Edmunds • LED lighting upgrades at West Suffolk House, the Harvey Adam Centre in Brandon, Rous Road Car Park in Newmarket, the Parkway Basement car park in Bury St Edmunds, the Ram Meadow and Abbey Gardens toilets. <p>We have undertaken energy audits where monitoring data has suggested that</p>	<p>We plan to install LED lighting upgrades at our leisure centres across West Suffolk based on funding business cases.</p> <p>We plan to improve the monitoring of energy performance of key buildings to allow us to identify and make further performance improvements to our buildings.</p> <p>We will continue to build high energy performance standards into the</p>
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	<p>performance can be improved and taken action to reduce unnecessary consumption. An example where this has been successful is Mildenhall Offices where changes to air conditioning controls should realise energy cost savings.</p> <p>During the year, we completed the construction of new commercial units at Sam Alper Court, Newmarket. The units are designed to a high energy standard with solar panels integrated into the roof to provide tenants with green energy.</p>	<p>design of new property. In particular, we will prepare business cases for on-site heat and power generation at our strategic developments at Western Way, Bury St Edmunds and the Mildenhall Hub, Mildenhall.</p>
Renewable energy	<p>Since 2012, we have invested around £1.15 million on six installations on Council-owned buildings. Value is shown in Appendix 2.</p> <p>In July 2016, Forest Heath District Council purchased Toggam Solar Farm, which at 12.4MW (megawatts) is believed to be the largest local authority-owned solar farm in England. Over the last year, the solar farm has generated around 11 million kWh, enough electricity to power 3,000 homes and offset CO2 emissions from 2,000 cars.</p>	<p>We will continue to explore the installation of renewable energy on existing and new property where justifiable based on our strategic objectives and investment principles.</p>
Recognition & Accreditation	<p>See Suffolk Carbon Charter Pathfinder organisation.</p>	<p>We will continue to participate both as a pathfinder organisation for the Suffolk Carbon Charter and will actively promote the Suffolk Green Buildings Network to showcase innovation.</p>

Appendix 2: Summary of financial performance of our roof-mounted solar portfolio

Install date/project	LA	Installation capacity (kWp)	Total investment	Internal Rate of Return (indicative)	Project life based on Feed In Tariff term (years)	Projected payback (years)	2016/17 actual revenue	Projected annual saving for the host(s)
2012 installs	FHDC	182	£435,562	11.88%	25	8	£-53,367	£-15,000
2012 installs	SEBC	222	£465,088	11.70%	25	8	£-60,346	£-16,000
2012 installs	Total	404	£900,650	11.79%	25	8		
Solar for Business - 2015	FHDC	154	£193,253	11.75%	20	9	£-16,795	£-4,205
Solar for Business - 2015	SEBC	438	£477,081	9.97%	20	10	£-55,655	£-13,415
Solar for Business - 2016	FHDC	30	£27,000	10.17%	20	9	£0 ³	£-505
Solar for Business - 2016	SEBC	13	£14,350	9.72%	20	10	£-332	£-315
Solar for Business	Total	635	£711,684	10.85%	20	9	£-72,782	£-18,440
Newmarket/Brandon Leisure Centres - 2015	FHDC	200	£255,052	11.86%	20	9	£-17,374	£-15,900
Solar Total	FHDC	566	£856,867				£-87,536	£-34,305
Solar Total	SEBC	673	£942,169				£-116,333	£-29,415
Total portfolio		1,239	£1,840,386	11%		9	£-203,869	£-64,520

³ These are new commercial units, Sam Alper Court which were completed during 2016 with some awaiting tenants. They will start to generate income in 2017.