Agenda Item No: 3

SECOND REVIEW OF INVESTMENT PRINCIPLES FOR ENERGY PROJECTS

To:	**Assets and Investment Committee**
Meeting Date:	**22nd July 2016**
From:	**Executive Director - Economy Transport and Environment**
Electoral division(s):	**All**
Forward Plan ref:	**2016/031** *Key decision:* **Yes**
Purpose:	**To review the set of investment principles and level of investment agreed at GPC on 19th May 2015 for the Local Authority Fund investments into Energy Projects.**
Recommendation:	**Assets and Investment Committee is asked to agree:**

a) The existing delegated authority to provide loan funding for individual projects for schools and County Council assets is updated to reflect Assets and Investment Committee's role in decisions and the delegated loan facility is extended from £10m to £20m to facilitate the next phase of projects in Appendix B&C.

b) To extend the payback period for smaller projects on schools and CCC assets from 15 to 20 years.

c) To extend project payback from 15 to 25 years for larger energy projects in line with the Authority's other infrastructure projects and to set development budgets in advance which are repaid through project delivery including sale of energy to local consumers.

d) To support funding of demonstrator projects which can provide wider economic and policy benefits provided they are managed within the energy investment principles and supplemented by grants where possible to manage financial risk.

e) That officers develop a corporate energy strategy to coordinate, unlock and manage larger energy projects from across CCC assets including proposals to facilitate the generation and selling of energy to local consumers, for decision by Members.

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1. BACKGROUND

1.1 GPC Committee agreed on 9th September 2014 a set of principles for energy investments and a delegated decision process to facilitate investment on individual energy projects. A first review of these principles was undertaken by GPC on 19th May 2015 and a second review is now proposed. Please see **Appendix A**, Energy Investment Principles and the delegated decision process to facilitate individual project investments.

1.2 The County Council appointed Bouygues Energies & Services as a service provider for energy performance contracting under the Greater London Authority's REFIT 2 Framework. This allows individual energy projects on schools and CCC assets to be developed using an agreed set of terms and conditions. Since their appointment Bouygues E&S Ltd have delivered 24 projects and have a project pipeline under development. See **Appendix B**: Energy Investment Monitoring Report.

1.3 Economy and Environment Committee agreed to use some of the ongoing returns from the investments into Energy Performance Contracting to fund the development of further larger energy projects and to grow the scale and ambition of the Authority's energy work (March 2015 and May 2016).

2. MAIN ISSUES

Facilitating the existing project pipeline

2.1 **Increasing the loan facility from £10million to £20million**.
The schools and CCC buildings programme has invested £5.28million and is forecast to deliver a further £4.03 million during 2016/17. The Park and Ride Smart Energy Grids Project is forecast to invest an additional £4.6million (conditional on 50% match funding of £2.3million of ERDF grant) this year. Together these projects will exceed the current agreed loan facility limit of £10million. To enable continuation of the programme and to facilitate some key opportunities highlighted in **Appendix B & C**, an extension of the loan fund limit of £10million to £20million is requested and that the delegation agreed at General Purposes Committee to facilitate individual investment and contract decisions for schools, CCC buildings and other assets is updated and to reflect f Assets and Investment Committee's decision making role for energy investments.

2.2 **Extending the payback period for schools**
During 2015/16 the schools energy programme has, where required, included new boilers. On a freestanding basis the payback on new boilers is greater than 20 years but when bundled with income from the Feed In tariff (FIT) for solar PV the payback period has been reduced to less than 15 years. Following the substantial reduction in FIT for solar PV in January 2016, it is no longer possible to reduce the payback period to less than 15 years for small scale projects including new boilers for schools. However, there is a business case for the Authority to extend the payback period to 20 years as a planned upgrade and renewal programme will reduce the need to issue emergency loans to schools (where boilers have broken down and need to be replaced) and generate a small return.

Developing larger projects – growing our energy ambition

2.3 **Development budgets and payback for larger projects**

To facilitate the development of larger energy projects and grow the ambition, **Appendix C** highlights some larger opportunities including roll out of smart grids on park and ride sites, further solar parks and energy from waste schemes that could be developed. However, to facilitate the development of larger projects a more acceptable project payback of 25 years in line with the Authority's other infrastructure projects is needed. Increasing the payback period is appropriate now that the energy performance contracting business model is tried and tested. An advance development budget is required in order to develop these projects to the point these are investment-ready. This advance would be repaid through project delivery including sale of energy to local consumers.

2.4 **Demonstrator projects**

There may be some energy projects that are developed for 'proof of concept', wider policy benefits such as piloting smart city innovations, energy security or simply growing the knowledge, mechanisms and skills in-house to then replicate projects at a larger scale. For example, the Smart Energy Grid Project at St Ives Park and Ride site is looking for grant funding to supplement the business case to bring it within the agreed 'investment principles and delegated decision mechanism'. Grant is needed to test battery storage and selling energy to local consumers to identify commercial arrangements for tackling a constrained local grid that is holding back local energy generation and growth opportunities.

2.5 **Development of a Corporate Energy Strategy**

There are some potential big financial gains for Cambridgeshire becoming more involved in larger energy projects. However, the larger the project and the greater the gain, often the more contentious projects can be. Given the potential benefits from a range of larger energy projects and the procurement of a service provider for energy performance contracting, agreeing a set of objectives and a clear strategy for delivery will be helpful to facilitate new projects and to bring the work highlighted below together corporately. A further report on this is planned.

2.6 **Local energy generation for selling to local consumers**

There are a number of Local Authorities that have set up energy companies. Some of these are licensed to sell energy to consumers and some can also generate energy for selling. Developing larger energy projects will rely on the ability to sell energy to consumers and Government is encouraging this entrepreneurial behaviour. The Department for Energy and Climate Change (DECC) currently projects an increase by 50% on wholesale costs by the mid-2020's and should the Hinckley Point Nuclear Reactor be approved a guaranteed price of electricity of more than double today's price. Consumers will pick up these costs through their bills. In this context, local generation and sale of low carbon energy to residents and businesses could help manage the cost of living and business competitiveness for our communities. Opportunities to set up our own license arrangements or work through others licensing arrangements need scoping and will be brought to a future Committee for discussion.

2.7 **Procurement**

Through the procurement of Bouygues Energies and Services Ltd, the Authority has access to engineering and construction skills across a range of infrastructure disciplines to design and build new low carbon projects. This arrangement will end for new projects in November and a further procurement is planned using the Greater London Authority's REFIT 3 Framework. It is important that the procurement of a service provider can provide continuity to the existing programme but also facilitate the Authority's growing energy ambitions.

3. ALIGNMENT WITH CORPORATE PRIORITIES

3.1 Developing the local economy for the benefit of all

A precondition for a thriving local economy is secure and affordable energy supplies. Developing local energy projects can support businesses and our communities to become more energy efficient and self-sufficient and provide greater resilience to future price volatility.

3.2 Helping people live healthy and independent lives

Fuel poverty is a significant issue. Energy prices are forecast to increase by 50% by the mid-2020s at a minimum. Evidence suggests that cold homes will bring greater health risks impacting negatively on health budgets and services. An Energy Company can undertake collective purchasing and selling of energy to help save vulnerable residents money on their energy bills as well as provide energy security through generating and selling energy locally.

3.3 Supporting and protecting vulnerable people

Fuel poverty impacts most on the vulnerable in our society. See 3.2 above.

4. SIGNIFICANT IMPLICATIONS

4.1 Resource Implications

Section 2.1 requests an increase to the loan facility from £10million to £20million for inclusion in the business plan 2017/18. The aim of the energy investments is to generate income for the County Council in the medium to longer term, while reducing the running costs of public buildings and potentially helping communities, businesses reduce their costs

4.2 Statutory, Risk and Legal Implications

There is a risk that investments make a loss but if investment decisions are made on good business cases and a balanced portfolio of projects is developed, spreading the risk, this can be managed.

For Demonstrator Projects, grant funding will look to be secured to manage financial risk. Projects may not proceed if the risk is considered too great with the business case or grant applications are unsuccessful. If awarded government or EU grants, delivery targets can sometimes be ambitious and bring consequent financial penalties if delivery is not achieved.

4.3 **Equality and Diversity Implications**

High energy prices affect the low paid disproportionately and so measures to manage prices and energy availability will be beneficial.

4.4 **Engagement and Consultation Implications**

When projects are brought forward, there will be engagement with local members and the community as part of the planning approval process.

4.5 **Public Health Implications**

Please see 3.2 and 3.3

Source Documents	**Location**
Cabinet Report, Mobilising Local Energy Investment (MLEI), 28th January 2014	MLEI Project Team
General Purposes Committee report, A Finance Framework within which Energy Performance Contracting and Renewable Energy Projects for schools, CCC sites and buildings can be delivered, 9th September 2014	CCC Website
Economy and Environment Committee Report, Forward Strategy, 10th March 2015	CCC Website
General Purposes Committee, Review of Investment Principles for Energy Projects, 19th May 2015	CCC Website
Economy and Environment Committee, Energy Investment Priorities, 24th May 2016	CCC Website
Economy and Environment Committee, REFIT Procurement, 14th July 2016	CCC Website

Appendix A: Investment Principles and Decision Making Flow Chart for Energy Projects (updated 19th May 2015)

All buildings and sites to be assessed by the appointed Service Provider and placed in tranches within a rolling programme. To facilitate this process and provide the flexibility for blending different finance packages the following principles have been agreed:

- For maintained schools and CCC buildings and sites, finance will be mainly in the form of loans from the Local Authority Fund. Loans will be made at PWLB rates plus a fee structure that ensures that all CCC costs as a minimum are covered including finance, legal, technical and contractual costs.

- For academy schools, a managed service model or a form of public/private partnership would be used. In this case, the Local Authority finance will go to the service provider rather than directly to the school. Charges made by the County Council to academy schools can be greater than maintained schools to reflect the different contractual risks.

- Energy Performance Contracting and renewable energy investments are a medium to long term investment strategy. Paybacks for some measures could be up to 15 years for others as little as 5 years. It is proposed that the Local Authority Fund should have flexibility to support pay backs of up to 15 years provided there is a positive business case to do so, in order to provide maximum benefit for buildings and sites.

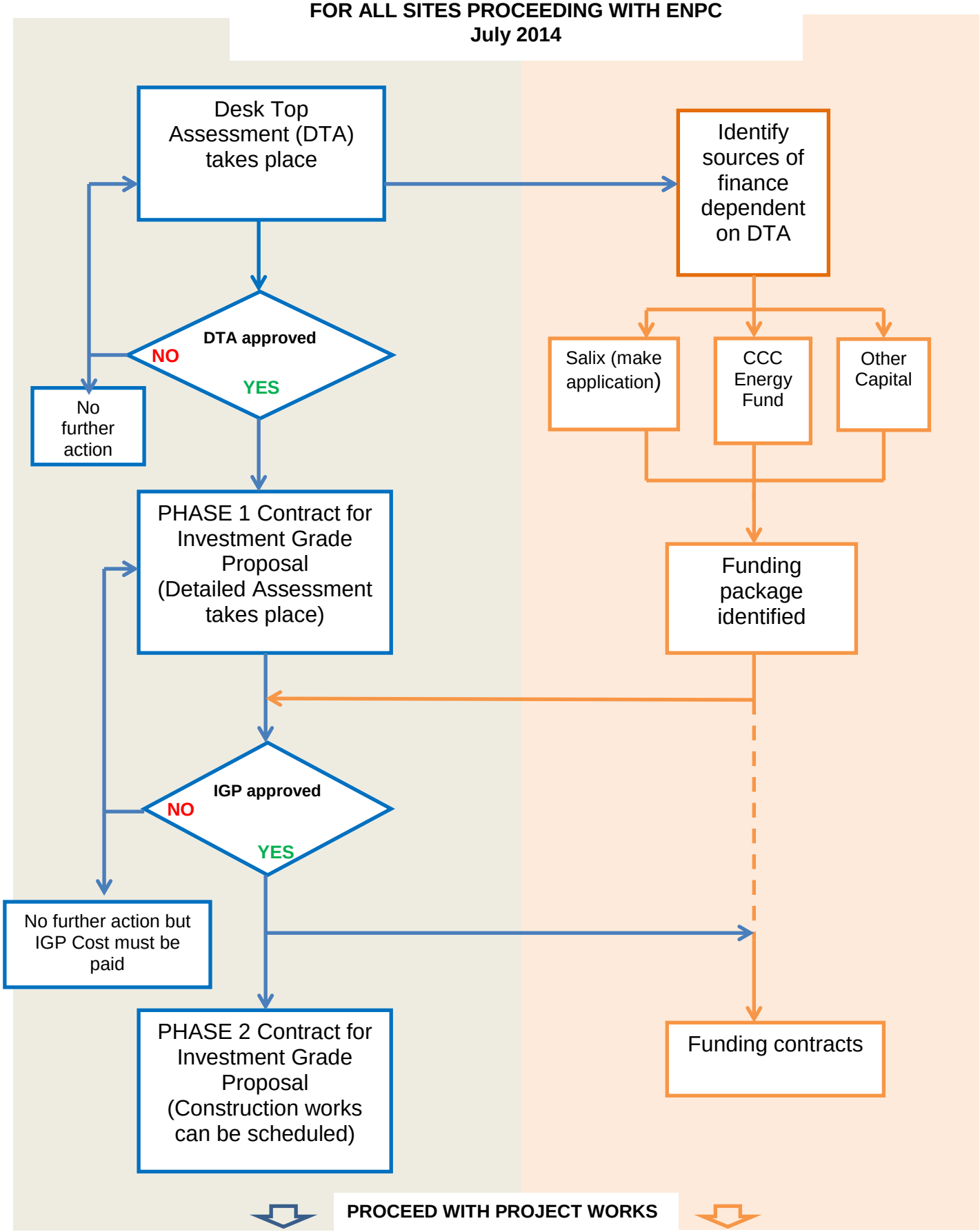
- The Local Authority Fund has a loan facility of £10m for energy performance contracting with the opportunity to review and increase this should project investments prove successful. In addition, the Local Authority Fund has a target investment of £10million into renewable energy including a Solar Park with the opportunity to review and increase should project investments prove successful.

- A proportion of any investment profits are re-invested into the Local Authority Fund for (i) further investment into energy efficiency and renewable energy projects and (ii) match fund to draw down further capital and revenue that can grow the investments and project pipeline, generating larger returns over time.

- Investment and contracting decisions within the agreed investment targets should be delegated in order to streamline decision making. It is proposed that the delegation of individual investment and contract decisions for schools, CCC buildings and sites to the Chief Finance Officer and Head of Strategic Assets in consultation with the Chairmen of General Purposes, Economy and Environment and Chairwoman of Children and Young Families Committees and Executive Directors: Children, Families and Adults and Economy, Transport and the Environment.

- There should be biannual monitoring reports to GP committee.

DECISION MAKING PROCESS CHART:
FOR ALL SITES PROCEEDING WITH ENPC
July 2014



Appendix B: Investment Monitoring Report

Capital value of current Energy Performance contracts

Sites completed (up to 2016) or delivery works ongoing

SITE	ENERGY FUND WITHIN £10m VALUE (£)	NOT FUNDED VIA ENERGY FUND	CAPITAL VALUE (£)	COST SAVINGS (£ per annum)	Base Energy Usage (MW	Energy Reduction (MWh)	Percent reductio
Milton Primary School	179,341		179,341	11,571	737	227	31%
Weatheralls (revised to include lighting)	126,062		126,062	9,707	570	129	23%
Sir Harry Smiths	636,226	5,067	641,293	48,567	2,854	414	15%
Ely St Johns	129,529		129,529	8,145	384	100	26%
Great Paxton	100,556		100,556	7,001	254	74	29%
Granta	112,850		112,850	10,709	895	119	13%
Meldreth	12,003	15,889	27,892	1,774	196	17	9%
Longsands	459,281	3,878	463,159	38,050	2,951	483	16%
Ernulf	712,469	2,283	714,752	40,111	2,087	402	19%
Bass VC	526,095	2,912	529,007	42,417	1,158	183	16%
Cottenham VC	188,671	20,000	208,671	16,614	1,970	316	16%
Samuel Pepys	157,323		157,323	13,232	810	134	17%
Queens Federation - Edith	66,681		66,681	5,712	450	40	9%
Queens Federation - Emma	88,413		88,413	7,357	230	45	20%
Neale Wade Academy (revised to increa	127,764		127,764	12,977	2,054	66	3%
Hinchingbrooke PV+ ECMs	740,051		740,051	44,837	5,563	851	24%
Linton VC (PV only)	82,494		82,494	7,731	673	38	6%
Bar Hill	94,123		94,123	7,049	446	111	25%
Fen Ditton Primary School PV+ECM	113,818		113,818	11,590	153	49	32%
St Albans - PV only	25,056		25,056	1,767	444	63	38%
Trumpington P+R - PV on building only	22,547		22,547	2,023	146	8	6%
Highfield SS	£62,732	£101,086	163,818	15,657	344	77	22%
CCC buildings	-	478,201	478,201	47,747	4,089	379	9%
Totals	**4,764,085**	**629,316**	**£5,393,401**	**£412,345**	**29,457**	**4,325**	**15%**

Sites currently at Investment Grade Proposal stage

SITE	ENERGY FUND VALUE (£)	NOT FUNDED VIA ENERGY FUND (£)	CAPITAL VALUE (£)	COST SAVINGS (per annum)	Base Energy Usage (MWh)	Energy Reduction (MWh)	Percent reduction
Castle Special School	100,173		100,173	7,802	1002	118	12%
Hauxton Primary School	25,783		25,783	1,852	82	25	30%
Linton Village College ECMs	187,875		187,875	13,385	1198	191	15%
Stukeley Meadows Primary School	65,420		65,420	4,881	395	69	17%
Trumpington P&R Lighting (est.)	60,000		60,000	4,000	100	10	10%
Witchford Village College	247,071		247,071	17,695	1411	230	16%
Great Abington Primary	41,279		41,279	3,083	181	37	20%
Totals	**727,601**		**727,601**	**52,698**	**£4,369**	**£680**	**17%**

Pre-contract sites with or without outline business case (2016-17)

SITE	APPROX ENERGY FUND VALUE (£)	NOT FUNDED VIA ENERGY FUND	APPROX. CAPITAL VALUE (£)	COST SAVINGS (£ per annum)	Base Energy Usage (MWh)	Energy Reduction (MWh)	Percent reduction
Brampton Primary School	75,887		75,887	5,738	501	92	18%
Houghton Primary School	30,534		30,534	2,333	183	26	14%
isleham Primary School	56,127		56,127	4,419	311	67	22%
Milton road Primary School	78,946		78,946	6,252	446	84	19%
Neale Wade Academy	146,737		146,737	tbc	tbc	tbc	tbc
The Meadow, Balsham	89,355		89,355	6,900	277	52	19%
Spring Meadow Primary School	70,428		70,428	5,230	347	70	20%
St Peters School	415,979		415,979	30,504	2071	588	28%
Rackham Primary School	58,290		58,290	4,149	233	54	23%
Soham Village College	333,873		333,873	25,121	2174	468	22%
Over Primary School (est)	70,000		70,000				
Gorefield Primary School (est)	70,000		70,000				
Sutton Primary School (est)	70,000		70,000				
Ramsey Primary School (est)	70,000		70,000				
St Bedes School (est)	150,000		150,000				
Kimbolton Academy (est)	70,000		70,000				
Middlefield Academy (est)	70,000		70,000				
RoundHouse Academy (est)	70,000		70,000				
Winhills Primary Academy (est)	70,000		70,000				
Thomas Eaton Primary School (est)	70,000		70,000				
Icknield Primary School (est)	70,000		70,000				
Willingham Primary School (est)	70,000		70,000				
The Lantern School (est)	70,000		70,000				
Somersham Primary School (est)	70,000		70,000				
Swavesey Primary School (est)	70,000		70,000				
Cavalry Primary School (est)	70,000		70,000				
Sawston Village College (est)	600,000		600,000				
St Ives and Park and Ride	2,300,000	2,300,000	4,600,000				
Totals	**5,456,156**	**2,300,000**	**7,756,156**				

(est) - no outline business case available yet but agreed to be part of the programme

Major projects - agreed outside ' investment principles' and delegations

SITE	ENERGY FUND LOAN VALUE (£)	NON ENERGY FUND LOANS	CAPITAL VALUE (£)
Soham Solar Farm (excl grid connection)	0	8,998,709	8,998,709
Totals	**-**		**8,998,709**

	ENERGY FUND LOAN VALUE (£)	NON ENERGY FUND LOANS	CAPITAL VALUE (£)
All sites/projects forecast total:	**10,947,842**	**11,928,029**	**22,875,867**

Appendix C: List of energy project opportunities

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Asset Type	Investment Scale	Investment to date	Project Type	Projects underway	Pre-2016	2016	2017	*2018	2019	2020
Schools										
240 schools (existing)	£10million	£5.2million	**EnPC	Yes						
10 new schools	£3million	0	***Power purchase	No		Assess opportunities - license arrangements				
CCC Buildings										
Offices		£478,201	EnPC	Yes						
Libraries		incl in above	EnPC	Yes			Assess outcome of the library review due April '16			
Catering Services			EnPC	No		Assess outcome of Catering Services review April '16				
Community buildings			EnPC	No		Assess opportunities				
Children Centres			EnPC	No		Assess opportunities				
Transport Assets										
Park and Ride	Over £10million		Mini Smart Grids	Viability stage		Outline business case for St Ives and Longstanton under development @£4.6 million, July 2016. ERDF under development. License needed.				
Guided busway	£1million		Solar PV/wind turbines	No		Assess opportunities				
Cycle ways	£1million		Solar paths	No		Solar pathways currently under test across Europe - prices not yet viable - Future potential				
Highways land/verges	£2million		Solar/wind	No		Assess opportunities				
Farm Estate										
Barns + farm buildings		£548,032	Solar PV	Yes see 1						
Land - Further five sites	Over £10million	£9.59million	Solar PV/wind	Yes see 2			Soham Solar Park plus two smaller schemes contracted and further potential for solar, anaerobic digestion or wind			
Other										
Housing Company - land development	TBC		Energy Centres	No		Scoping small scale community energy schemes to identify viability for small housing sites				
Waste to Energy - Amey Cespa	Over £20million		Combined Heat and Power and district heating	No		Assess opportunities to be included in the review of the waste contract				
	£57million	£15,716,233								

1. LGSS Estates have forty nine PV schemes registered

2. 12 MW Solar Park completion October 2016

** Licensing arrangements will need to be in place to buy and sell energy*

*** Energy Performance Contracting*

**** Power Purchase Agreement*