Draft



Description of	Energy	Current	C-1	Project Teno	Taskasloge Vort Tens	Annual k¥hrs	Annual k¥hrs	Annual k¥h	≫ k¥h	Desises Volum
Vork	Tane	n/k Vh	Category	Fioleccighe	rechnology - work rype	Pre-Project	Post-Project	savings	savings	Project Value

ng Fabric	Gas	2.80	2	Insulation - building fab	ric Cav	ity wall insulation	1,000,000	850,000	150	1,000 15%		50,000.00
cells to the rig	ght show th	ne calculat	ed value	s for each work typ	e.							
	Annua Financ Souine	al Pa ial	ayback ii Years	tCO2e pa	£/tCO2	e LT						
	£4,20)0	11.	90 27.5	58	60.43						
ing informatio	on for a wo	rk type wi	ll be flag	ged up in the 'Data	Entry Check'	column. The cor	mpliance che	eck cannot b	e complet	ed until all	informati	on is ente
	Payl Ye	back in ears	tCO₂e p	a £/tC02e LT	Data Ent Check	ry						
		11.90			Check all fic complete correctly	elds d						
		7.14	1	83.87 86.	.74 OK							
e all of the req	uired infor	mation ha	as been e	ntered correctly, th	e cells at the	top will show th	e final proje	ct figures an	d whethe	r or not the	e project is	s compliar
		Total	Salix	Total Draigst Da	what k in T	otal Einancial	Total		1			
_		Fund Reque	ding ested	Value	Years	savings	tCO ₂ e pa	£/tC	0₂e LT	Complianc	e	
Cat	tegory 1,2 & 4	£850,0	00.00	£850,000	15.69	£54,189	25	5.83	177.27	Complian	nt	
Ca	ategory 3	£6,00	00.00	£6,000 Tot	al Project Value	£856,000.00	Total Grar Value	nt £856,	,000.00			
u have a tech	nology tha	t is affecti	ng more	than one fuel, plea	se enter each	fuel into a sepa	rate line in t	he Complian	ice Tool.			
Description of Work	Energy Type	y Fue Cost p/kW	l t Catego /h	ry Project Type	e Techno	ology - Work Type	Annual kWhrs Pre- Project	Annual kWhrs Post- Project	Annual kv savings	^{Wh} %kWh⊴ s	savings P	roject Value
oiler to Heat pum	p Gas	2.80) 1	Heating	Air Sour	ce Heat Pump (air to water)	1,000,000	0	1,000,0	00 100	%	E200,000.00
oiler to Heat pum	p Electrici	ty 11.00	0 1	Heating	Air Sour	ce Heat Pump (air to water)	0	300,000	- 300,0	00 0%	6	£0.00
Category 3 (er ect being enat	habling wor bled, this ca	rks), pleas an be four	se provid nd in the	e a detailed descrip far right column of	otion of the pr the support t	oject and techno ool table. Up to	ology each w 10 work type	ork type is e es may be er	enabling. I ntered her	Please inclu re.	ude the nu	imber of t
Description o Work	of P	roject Type	Те	chnology - Work Type	Details o	f Projects Enabled	Proje Numb	ect ber	Project Valu	Je D	ata Entry Check	
Sub-metering		Metering		Flow Meters	Low	carbon heating	1		£1,000.00		ок	
Battery to suppor solar array	t Ba	attery Storage	e Bai	tery in combination with renewable		Solar Array	4		£5,000.00		ок	
Comple	ting 'S	Step 4	Cate	gory Deta	ils'							
pletion of 'Ste hnology C egory 1:	ep 4 Catego ategorie	ory Details	s' will dep	end on which cate	gory your pro	ject(s) fall into:				2		
nologies that	directly co	ontribute to	o the hea	t decarbonisation o	of a building b	y installation of	low carbon ł	neating.				
egory 2:	,				2	,		2				
nologies that	do not dire	ectly contr	ibute to t	he heat decarbonic	sation of a bui	ildina hut reduce	overall one	rav demand	so will su	innort futur	e heat de	carhonisat
								. gy actualia	55 mii 50			
00011 21												
egory 3:	do not		n omissis	no hut onch a futur	ro boot door d	oniontion and			toobacla-	100 010 010	mat from	the
egory 3: nologies that irement to me	do not red eet £500/t0	uce carbo CO2e lifeti	n emissio me savin	ons but enable futu gs.	re heat decart	oonisation projec	cts to take pl	ace - these	technolog	ies are exe	mpt from	the

Technologies that are only permitted if: (a) they are used to replace coal-fuelled heating systems or oil-fuelled heating systems, AND (b) if, in Salix's reasonable opinion, it has been demonstrated that it is not viable for a low-carbon heating system to be installed within the building as a replacement for the coal or oil-fuelled heating system.

Projects that fall into Category 2 and Category 3 must meet either one of criteria **A**, **B** or **C** as outlined below. Supporting commentary and evidence is needed to demonstrate each Category 2 and 3 project meets any one of the criteria. The criteria are outlined below, including advice on supporting information required.

Category 2 and Category 3 Projects

Criteria A: Category 2 and 3 measures are combined with measures in Category 1: In this section, provide an overview of how each Category 2 and 3 measure facilitates the implementation of the Category 1 project.

Criteria B: Category 2 and 3 measures are for buildings that already use low-carbon heating for all their heating requirements: In this section, provide a detailed description of these buildings including their heating systems and requirements.

Criteria C: A written commitment is made to future heat decarbonisation for the buildings in which measures are installed, which includes all of the following:

(i) A commitment to produce and submit to Salix, a Heat Decarbonisation Plan by **30th September 2021**.

(ii) An explanation within the Heat Decarbonisation Plan setting out how the building(s') fossil fuel heating systems will be replaced by low carbon heating when the fossil fuel system(s) reach the end of their natural lifetime. It is important to consider what will happen when your current heating plant has reached the end of its life and suitable upgrades have not been made to your building to manage this. The type or types of low carbon heating systems, and the likely timescale for this, must be identified. A template for this Heat Decarbonisation Plan is provided if there isn't an existing document, and this can be used to help create this plan if support is needed.

(iii) The Heat Decarbonisation Plan must include details of how it has been approved by their public body, how this plan is going to be implemented, and that there is a commitment to apply for and utilise funding where available to deliver the Heat Decarbonisation Plan. The Heat Decarbonisation Plan will enable public bodies to plan their approach to decarbonisation and their contribution to meeting the 2050 net zero target.

Step 1: Project Introduction



Project Title:	City Offices and Public Con	veniences Energy Efficiency Programme
Applicant:	Winchester City Council	
	· · · · ·	
Submission date:	#############	
Will you need further use of the Low	Yes	Low Carbon Skills Fund
Carbon Skills Fund?	165	
Please provide an estimate of how	2	
many jobs will be supported by	3	
these projects.		
Grant value requested (£)	£257,946.20	
Is the project dependent on any	No	
other funding streams?		
If the project is dependent on any other	funding stream, please provide details	s below.

Please answer yes/no to the following questions, if any require additional commentary please include this in the box provided:

1. Have you or your team worked with Salix before?	Yes
2. Can you confirm your organisation owns the buildings where you wish to undertake these measures?	Yes
3. Can you confirm that your organisation pays the energy bills for these buildings?	Yes
4. Can you confirm that the proposed measures have not yet started?	Yes
5. Upon award of funding, do you have access to frameworks to procure the measures against?	Yes
5a. If no, are you in a position to place orders having gone through a procurement process in line with financial regulations?	
6. Does the project require planning consent?	Yes
7. Have you secured all necessary internal sign off for this project proposal?	Yes
If no, please provide detail below	

8. Does the project include any Private Finance Initiative (PFI) buildings, if yes please provide detail below. Additional Commentary	No
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Applicant:	Winchester City Council
Project Phase	Pre-tender
Compliance Criteria:	£500 /tCO ₂ e LT

Step 2: Support Tool

Version 1.5

										Total Grant Funding Requested	Total Project Value	Payback in Years	Total Financial Savings	Total tCO ₂ e pa	£/tCO2e LT	Compliance
	Planned Start Date	Planned Completion Date	Site Life		Proje	ect Description			Category 1,2 & 4	£222,369.64	£257,946.20	28.61	£7,772	25.71	360.49	Compliant
	1/2/21	30/9/21	30		City Offices and Public Conve	eniences Energy Efficiency Programme	e		Category 3		£0.00	Total Project Value	£257,946.20	Total Grant Value	£222,369.64	
Category 1,2 and 4 projects																
	Description of Work	Energy Type	Fuel Cost p/kWh	Category	Project Type	Technology - Work Type	Annual kWhrs Pre-Project	Annual kWhrs Post-Project	Annual kWh savings	% kWh savings	Project Value	Annual Financial Savings	Payback in Years	tCO₂e pa	£/tCO2e LT	Data Entry Check
1	LED Lighting Upgrade (toilets)	Electricity	14.50	2	LED lighting	LED - new fitting	54,589	48,115	6,475	12%	£4,956.50	£939	5.28	0.46	433.54	ок
2	Replacement of Hand Dryers (toilets)	Electricity	14.50	2	Hand Dryers	Hand Dryers - replacement to more efficient type	31,754	4,768	26,986	85%	£11,500.00	£3,913	2.94	2.91	481.61	ОК
3	Double Glazing (City Offices)	Gas	2.32	2	Insulation - building fabric	Double glazing with metal or plastic frames	246,913	163,024	83,889	34%	£200,000.00	£1,946	102.76	15.42	463.08	ОК
4	Solar PV (City Offices)	Electricity	11.45	2	Renewable energy	Solar PV	144,624	139,471	5,153	4%	£7,314.00	£590	12.40	0.38	856.23	ОК
5	Ceiling Insulation (City Offices)	Gas	2.32	2	Insulation - building fabric	Loft insulation	246,913	224,690	22,222	9%	£13,044.45	£516	25.30	4.09	118.24	ОК
6	Air Source Heat Pump (City Offices - Annexe)	Gas	2.32	1	Heating	Air Source Heat Pump (air to water)	246,913	231,260	15,653	6%	£21,131.25	£363	58.19	2.88	585.50	ОК
7	Air Source Heat Pump (City Offices - Annexe)	Electricity	11.45	1	Heating	Air Source Heat Pump (air to water)	144,624	148,942	- 4,318	-3%		-£494		0.42	-	ОК
8										0%						
9										0%						
10										0%						

		Category 3 proje	cts				
	Description of Work	Project Type	Technology - Work Type	Details of Projects Enabled	Project Number	Project Value	Data Entry Check
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							



If you have more than 10 projects you wish to apply for, please contact: grants@salixfinance.co.uk



Step 3: Business Case

1. Project Cost Breakdown

If pre-tender please provide cost estimates, and final costs to be provided when available.



2. Cost Breakdown

Please provide commentary on the project cost breakdown. Salix appreciates that at this stage these costs may not be firm. Please provide commentary around how the costs have been estimated.

Project costs have come from feasibility studies conducted at each site. The project cost breakdown is based upon approximate system ratings, the size and extent of supporting plant plus required alterations for interface with existing infrastructure & systems. Further details are contained in the attachment to this application.

3. Project Details

Project background - please give detail on how this project was selected compared to alternative low carbon solutions.

An ASHP has been identified as appropriate for the City Offices and has been selected as there are no district heating options, no water courses for a WSHP or land available for a GSHP. The ASHP recommendation is combined with other energy saving measures, including the installation of loft insulation and double glazing to improve thermal performance, and Solar PV which will reduce the cost of the additional electricity consumed by the ASHP. Further details are contained in the attachment to this application.

4. Details of Project Energy Saving Calculations

Describe how the programme energy and carbon savings have been calculated, detailing any assumptions. Please attach savings calculations and product specifications alongside your application.

Refer to the attachment to this application for details of workings and assumptions for each project.

Post-completion do you have plans in place for monitoring your projects?

• Do you agree that you will participate and cooperate with those people who are assessing this project from BEIS?

Energy consumption via data on energy bills is already monitored and will continue to be monitored to ensure a reduction in energy demand is evident. In addition to this, carbon accounting is undertaken every six months thereby monitoring consumption and energy savings of projects in place. Reserach is currently been undertaken with Uni of Southampton to devevlop a energy tracker dashboard. Winchester City Council's Asset Management Team's Surveyors are qualified to ensure correct installation of the specified works. Therefore, there are already appropriate installation and sign-off protocols in place. This has been shown by previous solar PV works already undertaken. Winchester City Council's (WCC) Energy Manager has responsibility for monitoring ongoing energy costs.

participate and cooperate with BEIS.

WCC agrees to

salix

6. Project Governance

Please define the project team and their roles in the delivery of the project (e.g. consultants, contractors, senior manager etc.).

- Please outline the organisation structure in terms of who has the authority to approve the project and any changes.
- Has a Project Execution Plan been drawn up to state exactly how the project will be managed?
- Please provide commentary to demonstrate how the teams overseeing the works are appropriately trained and skilled for the proposed technologies.
- Please attach a copy of your internal project plan.

The works are to be administered by the in-house Asset Management Team, an MRICS qualified Surveyor will lead on the works project. Specifications will be prepared in accordance with Building Regulations and industry best standards. The works will be overseen by the Asset Management Team and all statutory approvals will be sought. The works will be competitively tendered in accordance with the Council's Contract Procedure Rules. WCC has a project team to manage the decarbonisation of city offices project. The team includes: Project Sponsor (to approve any project changes and maintain oversight); Project Co-ordinator (to co-ordinate internal and external resources ensuring project milestones are met); and Project Administrator (to assist with administration); there is option for additional support if required to meet deadlines. Senior managers at WCC will maintain an overview of the project through regular highlight reports and group meetings detailing project progress. WCC Asset Management Team has considerable experience managing projects of this size and nature including managing contractors, monitoring and signing off work, and post-project monitoring. See attached Implementation Plan with Gantt chart showing different project stages and milestones with associated timescales and dependencies.

7. Previous Experience

Describe any previous experience that you may have with the proposed energy efficiency measure.

• Please also outline the experience members of the project team have with managing projects of a similar scale, including that of any third-party support.

WCC's Asset Management Team has considerable previous experience managing the installation of the proposed energy efficiency measures at other sites and as MRICS qualified surveyors the team has the skills to effectively manage this project. Some PV panels are already installed at City Offices and Air Source Heat Pumps have been installed elsewhere in WCC buildings. Double glazing, LED upgrades, replacement hand dryers and insulation are all relatively simple and well within the capabilities of WCC staff to manage. WCC Asset Management Team includes four chartered building surveyors (RICS).

8. Procurement process

What are your plans for procuring the services needed for this project?

Any engagement with suppliers will be pro relative low estimated value of the planned open tender process. Three quotations wi when applying the agreed evaluation mode	ceeding in accordance with WCC Contract Procedure Rules and UK Public Contract Regulations 2015 (where applicable). Given the I works, it is anticipated that services and works will be well below their respective £100k and £250k thresholds that would require an I be required and these shall be evaluated against set criteria with the contract being awarded to the quotation which scores highest I.						
9. Project Risks & Mitigation							
If you have an existing risk register for this pr us. Risks and mitigations associated with proje	pject please share this with Salix. If a risk register is not available at this time please provide a provisional date for when you will share a copy with ect timescales will be required due to the importance of projects completing on time.						
Do you have a risk register for this project? (Yes/No)	No						
If "No" please confirm when you expect this w	Il be available.						
Provisional Date	2/14/2021						
10. Mitigating Fraud Please provide detail on the checks in place to mitigate fraud, including checks to ensure false representation and failure to disclose information is mitigated against. Please declare any conflicts of interest as part of this application. To confirm that there has been no abuse of position in the application process or selection of suppliers, please sign on supporting Signature Document which will be sent to you after Application. Successful tender applications must agree to WCC tendering (collusion) certificate to confirm that: there has been no previous conflicts of interests, details of how these are to be managed); the parties have had no previous convictions against fraud; and that the tender is a bona fide competitive tender. WCC ensures that all information is received before embarking on any project with potential companies. Due to the WCC being a local authority, there is a high level of scrunitisation, with internal audits undertaken.							
	© Salix 202						

Step 4: Grant Funding Criteria

For further guidance on individual category criteria please see: Please complete Sections 1 to 2 unless otherwise specified. Guidance Notes tab

1. Category 1 Projects - If you have not applied for Category 1 projects, please move on to section 2

Provide detailed commentary and supporting evidence for how the proposed work(s) fit into the estate wide decarbonisation strategy. Can you comment on how the site(s) will be made compatible for the low carbon heating system(s)?

A Category 1 Air Source Heat Pump is proposed for the City Offices and this is supported by Category 2 projects including loft insulation, double glazing and Solar PV. The Council will prioritise the implementation of the insulation and glazing measures so that the Air Source Heat Pump is appropriately sized for the reduced heating demand. Please see attached Report for more detail on the Category 1 Project.

2. Category 2 or 3 projects - If you have not applied for Category 2 or 3 projects, please move on to Step 5.

These technologies will only be eligible for funding where one of the following criteria (A,B or C) applies:

		Please input details below for the option where yes is selected.
Criteria A: Do you have both Category 1 and Category 2/3 measures in your application AND do the Category 2/3 measures support measures in Category 1? If yes, please provide an overview outlining how each Category 2/3 project relates to and facilitates the implementation of Category 1 measure.	Yes	A Category 1 Air Source Heat Pump is proposed for the City Offices and this is supported by Category 2 projects including loft insulation, double glazing and Solar PV. The Council will prioritise the implementation of the insulation and glazing measures so that the Air Source Heat Pump is appropriately sized for the reduced heating demand.
Criteria B: Are the Category 2/3 measures for buildings that already use low-carbon heating?		
If yes, please provide a detailed description of these buildings including their heating systems and requirements.		
Criteria C:		If No is selected, please sign the Signature Document (which will be sent to you after
If you have answered no to Criteria A and B, please provide your heat decarbonisation plan for all buildings involved in category 2/3 projects.		Application) as a written commitment to produce and submit to Salix, a Heat Decarbonisation Plan by 30 September 2021.
Select Yes to confirm that this heat decarbonisation plan has been provided with your application.		
3. Category 3 Projects - If you have not applied for just Category 3 pr Please provide commentary on why low carbon heating measures cannot be imple	rojects, please move mented on site presen	onto Step 5 tly.
1		

Step 5 Submit Application

You can upload the completed Public Sector Decarbonisation Scheme Application Form and any further supporting documentation to the Salix online application portal:

Application Portal

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Project Type	Work Type	Persistence Factor	Status/Comments
Category 1			
Heating	Air Source Heat Pump (air to water)	12.54	Use a separate line for each
	Ground Source Heat Pump	16.72	Use a separate line for each
	Water Source Heat Pump	16.72	Use a separate line for each
	Connect to existing district heating	28.50	
	Heating - Electric Heating	9.50	
Category 2		L	
Building management systems	BEMS - bureau remotely managed	9.00	
	BEMS - not remotely managed	6.84	
	BEMS - remotely managed	8.42	
Compressor	Compressed Air: air compressor upgrade	14.44	
Computers & IT solutions	CRT to LED monitors	7.20	
	Energy Efficient File Storage Replacement	9.00	
	Energy Efficient Server Replacement	9.00	
	Evaporative cooling for ICT	13.68	
	Free Cooling for ICT	13.68	
	Hot aisle/cold aisle containment	10.83	
	LED monitors instead of LCD (cost difference)	7.20	
	Multi Functional Devices	4.50	
	Network PC power management	4.00	
	Thin client	9.00	
	Uninterruptible Power Supplies	18.00	
	Virtualisation	9.00	
Cooling	Cooling - control system	6.84	
	Cooling - plant replacement/upgrade	8.21	
	Energy Efficient Chillers	14.44	
	Free cooling	13.68	
	Replacement of air conditioning with evaporative cooling	13.68	
Energy from waste	Anaerobic digestion	15.20	Use a separate line for each
	Incineration	15.20	fuel type
		10.83	Use a separate line for each
	Heating - discrete controls	6.84	fuel type
	Heating - distribution pipework improvements	15.20	
	Heating - TRVs	6.84	
	Heating - zone control valves	11.88	
	Replace steam calorifier with plate heat exchanger	28.50	
	Steam trap replacements	15.20	
	Thermal Stores	18.00	
Hot water	Flow restrictors	14.00	
	Hot Water - chlorine dioxide dosing and biocide treatment	9.50	
	Hot Water - distribution improvements	18.00	
	Hot Water - Efficient taps	11.00	
	Hot Water - point of use heaters	9.50	
Industrial kitchen equipment	Energy efficient combi-oven	8.10	
	Energy efficient convection-oven	10.30	
	Steriliser to dishwasher replacement	10.80	
Insulation - building fabric	Cavity wall insulation	30.00	
	External wall insulation	30.00	
	Double glazing with metal or plastic frames	28.00	
	Dry wall lining	30.00	
	Loft insulation	27.00	
	Floor Insulation - suspended timber floor	27.00	
	Floor Insulation - solid floor or other type	30.00	
ļ	Roof insulation	30.00	
	Secondary glazing	7.92	
Insulation - draught proofing	Insulation - draught proofing	29.25	
Insulation - other	Air Curtains - ambient	11.40	
	Air Curtains - heated	10.83	
	Automatic speed doors	8.45	

	Automatic/revolving doors	8.45	
	Draught Lobby (external)	29.25	
	Draught Lobby (internal)	29.25	
	Radiator reflective foil (external walls)	8.00	
Insulation - pipework	Heating pipework insulation (external)	9.00	
	Heating pipework insulation (internal)	22.50	
Lab Upgrades	Diode pumped solid state lasers	6.80	
	Energy Efficient Drying Cabinets	12.80	
	Energy Efficient Freezers (-25°C)	12.83	
	Energy Efficient Freezers (-86°C)	8.55	
	Energy Efficient Fume Cupboards	16.25	
	Energy Efficient Growth Cabinets	10.80	
	Energy Efficient X-Ray Generator	10.00	
	Fume Cupboards - Auto Sash Closing + PIR	6.84	
	Fume Cupboards - VAV Controls + Inverter Drives	10.26	
	Heat Recovery on Extract System	10.83	
LED lighting	LED - new fitting	25.00	
	LED - same fitting	13.00	
Lighting controls	Lighting - discrete controls	8.89	
	Lighting control system centralised	10.26	
Motor controls	Fixed speed motor controls	11.40	
	Motors - flat belt drives	11.40	
	Variable speed drives	10.26	
Motor replacement	Motors - high efficiency	15.00	
Office equipment	Office equipment improvements for non-ICT	3.00	Lise a senarate line for each
Renewable energy	Small Hydropower	22.80	fuel type
	Solar PV	22.50	
	Solar Thermal	17.10	
Time switches	Time switches	6.84	
Transformers	Low loss	30.00	
	Low loss (cost difference)	30.00	
	Low loss+voltage management	30.00	
	Low loss+voltage management(cost difference)	30.00	
	I ransformer tapping change	30.00	
Ventilation	Fans - air handling unit	23.75	
	Phase shares material	14.25	
		23.75	
		7.22	
	Ventilation - distribution	6.84	
		0.04	
Category 3		1	
Battery Storage	Battery in combination with renewable	N/A	
	Standalone Batteries	N/A	
	Upgrade uninterruptible power supply	N/A	
Electrical Infrastructure	Capacity Improvements	N/A	
	Electrical Distribution	N/A	
Mataria		N/A	
Metering		N/A	
		N/A	
	Metering Coffware	N/A	
		N/A	
Category 4			
Boilers	Boilers - control systems	6.84	
	Boilers - replacement combination	7.22	
	Boilers - replacement condensing	14.44	
	Boilers - replacement modular	10.83	
	Boilers - retrofit economiser	10.83	
Combined heat & power	CHP Private Wire Connection	30.00	
	Gas Turbine	11.40	
	Gas Engine CHP	15.20	Ilse a senarate line for each
Heating	Oil to Gas - boiler fuel switching	7.92	fuel type

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