

# Category List



Project Type	Work Type	Persistence Factor	Status/Comments
<b>Category 1</b>			
Heating	Air Source Heat Pump (air to water)	<b>12.54</b>	Use a separate line for each fuel type
	Ground Source Heat Pump	<b>16.72</b>	Use a separate line for each fuel type
	Water Source Heat Pump	<b>16.72</b>	Use a separate line for each fuel type
	Connect to existing district heating	<b>28.50</b>	
	Heating - Electric Heating	<b>9.50</b>	
<b>Category 2</b>			
Building management systems	BEMS - bureau remotely managed	<b>9.00</b>	
	BEMS - not remotely managed	<b>6.84</b>	
	BEMS - remotely managed	<b>8.42</b>	
Compressor	Compressed Air: air compressor upgrade	<b>14.44</b>	
Computers & IT solutions	CRT to LED monitors	<b>7.20</b>	
	Energy Efficient File Storage Replacement	<b>9.00</b>	
	Energy Efficient Server Replacement	<b>9.00</b>	
	Evaporative cooling for ICT	<b>13.68</b>	
	Free Cooling for ICT	<b>13.68</b>	
	Hot aisle/cold aisle containment	<b>10.83</b>	
	LED monitors instead of LCD (cost difference)	<b>7.20</b>	
	Multi Functional Devices	<b>4.50</b>	
	Network PC power management	<b>4.00</b>	
	Thin client	<b>9.00</b>	
	Uninterruptible Power Supplies	<b>18.00</b>	
	Virtualisation	<b>9.00</b>	
Cooling	Cooling - control system	<b>6.84</b>	
	Cooling - plant replacement/upgrade	<b>8.21</b>	
	Energy Efficient Chillers	<b>14.44</b>	
	Free cooling	<b>13.68</b>	
	Replacement of air conditioning with evaporative cooling	<b>13.68</b>	
Energy from waste	Anaerobic digestion	<b>15.20</b>	
	Incineration	<b>15.20</b>	Use a separate line for each fuel type
Hand Dryers	Hand Dryers - replacement to more efficient type	<b>8.21</b>	
Heating	Heat recovery	<b>10.83</b>	Use a separate line for each fuel type
	Heating - discrete controls	<b>6.84</b>	
	Heating - distribution pipework improvements	<b>15.20</b>	
	Heating - TRVs	<b>6.84</b>	
	Heating - zone control valves	<b>11.88</b>	
	Replace steam calorifier with plate heat exchanger	<b>28.50</b>	
	Steam trap replacements	<b>15.20</b>	

	Thermal Stores	<b>18.00</b>	
Hot water	Flow restrictors	<b>14.00</b>	
	Hot Water - chlorine dioxide dosing and biocide treatment	<b>9.50</b>	
	Hot Water - distribution improvements	<b>18.00</b>	
	Hot Water - Efficient taps	<b>11.00</b>	
	Hot Water - point of use heaters	<b>9.50</b>	
Industrial kitchen equipment	Energy efficient combi-oven	<b>8.10</b>	
	Energy efficient convection-oven	<b>10.30</b>	
	Steriliser to dishwasher replacement	<b>10.80</b>	
Insulation - building fabric	Cavity wall insulation	<b>30.00</b>	
	Double glazing with metal or plastic frames	<b>28.00</b>	
	Dry wall lining	<b>30.00</b>	
	Loft insulation	<b>27.00</b>	
	Floor Insulation - suspended timber floor	<b>27.00</b>	
	Floor Insulation - solid floor or other type	<b>30.00</b>	
	Roof insulation	<b>30.00</b>	
	Secondary glazing	<b>7.92</b>	
Insulation - draught proofing	Insulation - draught proofing	<b>29.25</b>	
Insulation - other	Air Curtains - ambient	<b>11.40</b>	
	Air Curtains - heated	<b>10.83</b>	
	Automatic speed doors	<b>8.45</b>	
	Automatic/revolving doors	<b>8.45</b>	
	Draught Lobby (external)	<b>29.25</b>	
	Draught Lobby (internal)	<b>29.25</b>	
	Radiator reflective foil (external walls)	<b>8.00</b>	
Insulation - pipework	Heating pipework insulation (external)	<b>9.00</b>	
	Heating pipework insulation (internal)	<b>22.50</b>	
Lab Upgrades	Diode pumped solid state lasers	<b>6.80</b>	
	Energy Efficient Drying Cabinets	<b>12.80</b>	
	Energy Efficient Freezers (-25°C)	<b>12.83</b>	
	Energy Efficient Freezers (-86°C)	<b>8.55</b>	
	Energy Efficient Fume Cupboards	<b>16.25</b>	
	Energy Efficient Growth Cabinets	<b>10.80</b>	
	Energy Efficient X-Ray Generator	<b>10.00</b>	
	Fume Cupboards - Auto Sash Closing + PIR	<b>6.84</b>	
	Fume Cupboards - VAV Controls + Inverter Drives	<b>10.26</b>	
	Heat Recovery on Extract System	<b>10.83</b>	
LED lighting	LED - new fitting	<b>25.00</b>	
	LED - same fitting	<b>13.00</b>	
Lighting controls	Lighting - discrete controls	<b>8.89</b>	
	Lighting control system centralised	<b>10.26</b>	
Motor controls	Fixed speed motor controls	<b>11.40</b>	

	Motors - flat belt drives	<b>11.40</b>	
	Variable speed drives	<b>10.26</b>	
Motor replacement	Motors - high efficiency	<b>15.00</b>	
Office equipment	Office equipment improvements for non-ICT	<b>3.00</b>	
Renewable energy	Small Hydropower	<b>22.80</b>	Use a separate line for each fuel type
	Solar PV	<b>22.50</b>	
	Solar Thermal	<b>17.10</b>	
Time switches	Time switches	<b>6.84</b>	
Transformers	Low loss	<b>30.00</b>	
	Low loss (cost difference)	<b>30.00</b>	
	Low loss+voltage management	<b>30.00</b>	
	Low loss+voltage management(cost difference)	<b>30.00</b>	
	Transformer tapping change	<b>30.00</b>	
Ventilation	Fans - air handling unit	<b>23.75</b>	
	Fans - high efficiency	<b>14.25</b>	
	Phase change material	<b>23.75</b>	
	Ultrasonic Humidifiers	<b>7.22</b>	
	Ventilation - distribution	<b>30.00</b>	
	Ventilation - presence controls	<b>6.84</b>	
<b>Category 3</b>			
Battery Storage	Battery in combination with renewable	<b>N/A</b>	
	Standalone Batteries	<b>N/A</b>	
	Upgrade uninterruptible power supply	<b>N/A</b>	
Electrical Infrastructure	Capacity Improvements	<b>N/A</b>	
	Electrical Distribution	<b>N/A</b>	
	Incoming Electricity Provision	<b>N/A</b>	
Metering	Flow Meters	<b>N/A</b>	
	Heat Meters	<b>N/A</b>	
	Metering Other	<b>N/A</b>	
	Metering Software	<b>N/A</b>	
<b>Category 4</b>			
Boilers	Boilers - control systems	<b>6.84</b>	
	Boilers - replacement combination	<b>7.22</b>	
	Boilers - replacement condensing	<b>14.44</b>	
	Boilers - replacement modular	<b>10.83</b>	
	Boilers - retrofit economiser	<b>10.83</b>	
Combined heat & power	CHP Private Wire Connection	<b>30.00</b>	
	Gas Turbine	<b>11.40</b>	
	Gas Engine CHP	<b>15.20</b>	
Heating	Oil to Gas - boiler fuel switching	<b>7.92</b>	Use a separate line for each fuel type

### Category Definitions

<p><b>Category 1</b></p>	<p>Technologies that directly contribute to the heat decarbonisation of a building by installation of low carbon heating.</p>
<p><b>Category 2</b></p>	<p>Technologies that do not directly contribute to the heat decarbonisation of a building but reduce overall energy demand and so will support future heat decarbonisation. For example, insulation, glazing, ventilation. For a detailed outline of the category 2 criteria please refer to the '<b>Guidance Notes</b>'.</p>
<p><b>Category 3</b></p>	<p>Technologies that do not reduce carbon emissions but enable future heat decarbonisation projects to take place – these technologies are exempt from the requirement to meet the £500/tCO<sub>2</sub> lifetime. For a detailed outline of the category 3 criteria please refer to the '<b>Guidance Notes</b>'.</p>
<p><b>Category 4</b></p>	<p>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.            For example, gas-fired CHP and gas boiler replacement projects would fit into this Category provided they meet the above conditions.</p>