

**Salix Technology List & Persistence Factors used (4th September 2014)**

Project Type	Work Type	Current PF (Basic maintenance)
Boilers	Boilers - control systems	6.84
	Boilers - replacement condensing	14.44
	Boilers - replacement combination	7.22
	Boilers - replacement modular	10.83
	Boilers - burner management	6.84
	Boilers - retrofit economiser	10.83
Building management systems	BEMS - bureau remotely managed	9.00
	BEMS - not remotely managed	6.84
	BEMS - remotely managed	8.42
Combined heat & power	Gas, Diesel, gasoil engine CHP	15.20
	Biomass CHP	7.60
	Gas Turbine	11.40
Compressor	Compressed Air: air compressor upgrade	14.44
Computers & IT solutions	Network PC power management	4.00
	CRT to flat screen LCD	7.20
	Virtualisation	4.50
	Thin computers	4.50
	Uninterruptible Power Supplies	18.00
	Free Cooling for ICT	13.68
	Evaporative cooling for ICT	13.68
	Energy Efficient File Storage Replacement	4.50
	LED monitors instead of LCD (cost difference)	7.20
	CRT to LED monitors	7.20
	Hot aisle/cold aisle containment	10.83
	Multi Functional Devices	4.50
	Energy Efficient Server Replacement	4.50
Cooling	Cooling - plant replacement/upgrade	8.21
	Free cooling	13.68
	Replacement of air conditioning with evaporative cooling	13.68
Hand Driers	Hand Driers - replacement to more efficient type	4.18
Energy from waste	Anaerobic digestion	15.20
	Incineration	15.20
Heating	Electric to Gas - heating using CHP	15.20
	Electric to Gas - heating using condensing boilers	14.44
	Electric to Gas - tumble driers	8.40
	Heat recovery	10.83
	Heating - direct fired system	9.50
	Heating - discrete controls	6.84
	Heating – distribution pipework improvements	15.20
	Oil to Gas - boiler fuel switching	7.92
	Replace steam calorifier with plate heat exchanger	28.50
	Thermal Stores	18.00
	Heating - TRVs	6.84
	Heating - zone control valves	11.88
	Steam trap replacements	15.20

**Salix Technology List & Persistence Factors used (4th September 2014)**

Project Type	Work Type	Current PF (Basic maintenance)
Hot water	Hot Water - distribution improvements	18.00
	Hot Water - point of use heaters	9.50
Industrial kitchen equipment	Steriliser to dishwasher replacement	10.80
Insulation - building fabric	Cavity wall insulation	30.00
	Dry wall lining	30.00
	Loft insulation	27.00
	Retrofit single glazing units	8.00
	Roof insulation	30.00
	Secondary glazing	7.92
Insulation - draught proofing	Insulation - draught proofing	29.25
Insulation - pipework	Heating pipework insulation (internal)	22.50
	Heating pipework insulation (external)	9.00
Insulation - other	Radiator reflective foil (external walls)	8.00
	Automatic/revolving doors	8.45
	Automatic speed doors	8.45
	Draught Lobby (internal)	29.25
	Draught Lobby (external)	29.25
	Air Curtains - heated	10.83
	Air Curtains - ambient	11.40
	Lab Upgrades	Energy Efficient Freezers (-25°C)
Energy Efficient Freezers (-86°C)		5.80
Energy Efficient Growth Cabinets		10.80
Diode pumped solid state lasers		6.80
Fume Cupboards - VAV Controls + Inverter Drives		10.26
Fume Cupboards - Auto Sash Closing + PIR		6.84
Energy Efficient Fume Cupboards		16.25
Lighting controls	Heat Recovery on Extract System	10.83
	Lighting - discrete controls	8.89
Lighting upgrades	Lighting control system centralised	10.26
	Electronic ballast with dimming control	11.40
	Replace halogen with HID metal halide	20.00
	HP Sodium including new fitting	20.00
	Compact Fluorescent including changing the fitting	20.00
	Compact Fluorescent using same fitting	10.00
	Induction Fluorescent including changing the fitting	20.00
	T5 lighting including changing the fitting	20.00
	T5 lighting retrofit using adaptors	10.00
	T8 lighting including changing the fitting	20.00
	T8 lighting retrofit using adaptors	10.00
	T12/T8 to CCFL including new fitting	20.00
T12/T8 to CCFL using same fitting	10.00	

**Salix Technology List & Persistence Factors used (4th September 2014)**

Project Type	Work Type	Current PF (Basic maintenance)
LED lighting	Halogen to LED including changing the fitting	25.00
	Halogen to LED using same fitting	13.00
	Flood lighting to LED including changing the fitting	20.00
	Compact Fluorescent to LED including new fitting	25.00
	Compact Fluorescent to LED using same fitting	13.00
	Incandescent to LED including new fitting	25.00
	Incandescent to LED using same fitting	13.00
	T12/T8 to LED including new fitting	25.00
T12/T8 to LED using same fitting	13.00	
Street lighting	Replace fitting, controls with electronic ballasts	15.00
	Replace fitting with LED	20.00
	Replace controls including electronic ballasts	12.72
	Replace controls but not ballasts	8.89
	Fit centralised controls with electronic ballasts	12.72
	Fit centralised controls but not ballasts	12.72
	Solar powered bollards	10.00
Non-illuminated bollards	30.00	
Traffic lights	Replace with LED including new fitting	20.00
	Replace with LED using same fitting	10.00
Motor controls	Fixed speed motor controls	11.40
	Variable speed drives	10.26
	Motors - flat belt drives	11.40
Motor replacement	Motors - high efficiency	15.00
Office equipment	Office equipment improvements for non-ICT	3.00
Renewable energy	Biomass boilers	15.12
	Heat Pump (Air Source)	10.83
Swimming	Swimming pool covers - liquid	8.80
	Swimming pool covers - manual	7.92
	Swimming pool covers - motorised	8.45
Time switches	Time switches	6.84
Transformers	Low loss (cost difference)	30.00
	Low loss	30.00
	Low loss+voltage management(cost difference)	30.00
	Low loss+voltage management	30.00
	Transformer tapping change	30.00
Ventilation	Ventilation - distribution	30.00
	Fans - air handling unit	23.75
	Fans - high efficiency	14.25
	Ventilation - presence controls	6.84
Voltage management	Voltage management - fixed ratio	19.00
	Voltage management - variable ratio	19.00