

Woolley Project Management Ltd Energy Saving Action Plan



August 2015

Energy Saving Action Plan Contents

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Key to Actions

Capital Investment Cost	None or low	Moderate	High
	£	£	£
Potential CO ₂ Saving	Little or none	Moderate	High
	CO ₂ (e)	CO ₂ (e)	CO ₂ (e)
Potential Cost Saving	Little or none	Moderate	High
	£	£	£

Energy Management

No. 1	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/ Completion date
	<p>Involve staff in saving energy. The biggest opportunities for energy saving are usually heating, lighting and IT equipment. These are directly within the control of staff and you should be able to save up to 10% of your total energy costs simply by implementing some common sense, good housekeeping measures.</p>	£	CO ₂	£	<ul style="list-style-type: none"> Continue to keep staff motivated to help reduce energy / resources within the company. Energy saving pamphlets distributed to all staff, to give them ideas on how to save energy at home. Consider starting an 'energy waster jar'. 	All	Monthly
	<p>Create an awareness campaign. Use posters and stickers (available from the Carbon Trust) to raise interest. Tell staff how much energy is being consumed and where and ask them for suggestions to reduce consumption.</p>	£	CO ₂	£	<ul style="list-style-type: none"> Posters have been placed around the office. All staff will be updated with regards to energy saving and are encouraged to put further green suggestions forward. 	AJ	Monthly
	<p>Record your energy consumption and set targets for reduction. Record your energy use on a weekly or monthly basis and plot this on a spread sheet. Use this information to set energy use targets and monitor your progress against these. A clip on energy meter available from most DIY stores (or a smart meter for 3 phase supplies) provide an instant, high impact visual record of your energy consumption and can record energy use over a period of days, weeks and months.</p>	£	CO ₂	£	<ul style="list-style-type: none"> Using new energy meters, energy use shall be recorded on a spreadsheet. This will be reviewed on a quarterly and annual basis to ensure energy use is as low as possible and that targets are being met. Publish these results to the team. 	AJ	Quarterly/ Annually
	<p>Record activities and successes. Make sure staff are kept informed of progress. Consider implementing a reward scheme for the team or individual that makes the most progress or comes up with the best idea.</p>	None	CO ₂	£	<ul style="list-style-type: none"> All activities around saving energy can be and are discussed at regular meetings. Successes will be shared on social media platforms 	All	Monthly
	<p>Carry out regular internal energy audits. Carry out regular energy saving 'walk-rounds' particularly 'out of hours' to identify and put right any unnecessary uses of energy,</p>	None	CO ₂	£	<ul style="list-style-type: none"> Weekly checks will be carried out by a team member. NW will visit the premises on a monthly basis "out of hours". 	All	Weekly/ Monthly

Building Fabric

No. 2	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/ Completion date
	<p>Cut out drafts. Typically, 35% of the heat in a commercial building is lost through ventilation and air infiltration (drafts). Make a significant difference to the heating bills at a minimal cost by checking doors, windows and roof lights regularly and ensuring that draught proofing is in good condition and that any cracks and gaps are repaired promptly.</p>	£	CO ₂	£	<ul style="list-style-type: none"> Continue 6 monthly check to ensure the existing draught proofing is sufficient and in good order. The efficient wood burner in the main office space is fired entirely by home produced firewood. 	AJ	Aug 2015
	<p>Insulate the roof. More than 20% of a typical commercial building's heat is lost through the roof. Reduce this by up to 80% by insulating the roof spaces to a depth of 270 mm or to a minimum 'u' value of 0.25 W/m²/k. Consider using the following green products:</p>	£	CO ₂	£	<ul style="list-style-type: none"> The roof is insulated with Earthwool under the floor boards and Celotex in the roof eaves. Annual visual checks will be made to ensure all is in good order. 	AJ & NW	Mar 2016
	<p>Assess your windows. Up to 25% of the heat lost in commercial buildings is through the windows. Fit thermal blinds or curtains and encourage users to close them at the end of the working day to help keep the heat in during the winter months. Where possible fit high performance double or triple glazing or alternatively, secondary glazing, (glass, Perspex, or polythene film). In the interim, do the '1pence coin test'. If a 1p coin can slide between the window and its frame, then draft strips will be a cost effective short term solution.</p>	£ - £	CO ₂	£	<ul style="list-style-type: none"> All windows in the building are secondary glazed. A 6 monthly check will be made to ensure all windows are in good condition and drafts are kept to a minimum 	AJ	Feb 2016

Heating

No. 3	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/Completion date
	<p>Check room temperature settings. Room temperatures should be set between 19°C and 21°C. It is not uncommon in buildings with multiple users, to find that temperature settings have been left at maximum by people mistakenly trying to heat the building as quickly as possible. Train users how to use the controls or make them tamper proof. Reducing the temperature by 1°C will save up to 8% of your heating fuel costs.</p>	None	CO ₂	£	<ul style="list-style-type: none"> Thermostats to be placed around the office to highlight what the optimum working temperatures are. Heating is set to come on/off as set by NW on a timer. 	NW & AJ	Monthly
	<p>Check hot water temperature settings. Hot water temperature controls should be set to no more than 60°C. This is the minimum temperature required to combat legionella.</p>	None	CO ₂	£	<ul style="list-style-type: none"> The hot water temperature is set to 60°C and will not be changed. Visual inspection every 6 months to ensure the temperature is still set at 60°C. 	NW & AJ	6 monthly
	<p>Service your boiler(s). Regular servicing will keep your boiler running at peak efficiency. Heating costs can increase by 30% or more if the boiler is poorly operated or maintained</p>	£	CO ₂	£	<ul style="list-style-type: none"> The boiler is serviced biannually and was last serviced in June 2014. 	NW & AJ	Jun 2016
	<p>Install room thermostats and thermostatic radiator valves (TRV's). If heating throughout the building appears to be uneven and patchy it would suggest that existing temperature controls are inadequate. Improve comfort levels and start making significant savings on heating fuel costs by installing room thermostats and thermostatic radiator valves (TRV's) throughout the building.</p>	£	CO ₂	£	<ul style="list-style-type: none"> TRV's are fitted to all radiators which work in conjunction with the buildings thermostat 	AJ	N/A
	<p>Improve heating zoning. If several of parts of your building are occupied at different times of the day and on different days of the week it could be that certain areas are heated even when they are unoccupied. Improved zoning along with appropriate time and temperature controls will allow you to match the heating to the occupancy patterns of the building saving you fuel and cutting your emissions.</p>	£	CO ₂	£	<ul style="list-style-type: none"> All radiator thermostats are set accordingly and remain off for unused rooms. A timer is used for the central heating. 	NW	Weekly
	<p>Replace the heating system. If the boiler is more than 15 years old or showing signs of being inefficient, consider replacing it with a modern condensing boiler or with a renewable heat source (ASHP or biomass). DECC 'renewable heat incentive' payments are making renewable heating technologies increasingly attractive.</p>	£	CO ₂	£	<ul style="list-style-type: none"> Boiler replaced with super double-condensing oil fired boiler in 2008. 	AJ	To be renewed in 2018

Office Equipment

No. 4	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/Completion date
	Train staff to use standby, sleep and 'hibernate' modes. Most office equipment (PC's, printers, photocopiers etc.) can be set to revert to standby, sleep and hibernate mode after standing idle for a pre-set period of time. On standby mode, a PC's running costs will be reduced from around £50 to £15 a year. Ensure that all staff understand how to set 'power down' modes on their PC's.	None	CO ₂	£	<ul style="list-style-type: none"> All office equipment is set to sleeping mode when machine is not in use. All PCs switched off at night. A new, more energy efficient photocopier/printer was purchased in Sept 2013. 	ALL	Ongoing
	Make someone responsible. A member of staff should be given responsibility for switching off common user equipment such as photocopiers and printers overnight and at weekends.	None	CO ₂	£	<ul style="list-style-type: none"> The last person in the office is responsible for ensuring no machines are left on unnecessarily 	ALL	Ongoing
	Use laptops instead of desktop PCs. Laptops are designed to be energy efficient with a typical maximum power demand of about 40W as opposed to the 150W or more required by a desktop PC.	£ - £	CO ₂	£	<ul style="list-style-type: none"> Laptops/iPads are used as and when appropriate 	NW	Ongoing
	Use flat screen LCD monitors instead of CRTs Flat screen monitors use about 30W as opposed to the 90W required by a CRT monitor.	£ - £	CO ₂	£	<ul style="list-style-type: none"> Each member of staff has a flat screen LCD monitor 	ALL	N/A

Lighting

No. 5	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/Completion date
	Replace any halogen spotlights. You will get the same quality and intensity of light using 35W (infra red coated (IRC) spotlights as you would from a standard 50 W spotlight. Alternatively, try LED lighting. This has improved vastly in recent years with a 10W LED spotlight providing the same light as a 50W halogen. 11W CFL spotlights can also be used.	£ - £	CO ₂ - CO ₂	£	<ul style="list-style-type: none"> All lights in the property are low energy LED (10w) other than 28w lights installed in bathrooms and one 28w light installed in Kitchen. 	AJ/LA	N/A
	Specify 'triphosphor' or 'multiphosphor' tubes for your fluorescent lights. These use the same amount of energy, but they are 30% brighter and, unlike traditional fluorescents, they don't dim with age. By using brighter	£ - £	CO ₂	£ - £	<ul style="list-style-type: none"> We do not use fluorescent lighting in the office. 	AJ/LA	N/A

	triphosphor lamps you may be able to remove some tubes and save more energy.						
	Encourage staff to turn off lights. Staff switching off lights when not needed can save up to 15% of your lighting costs. Fluorescent lights use only a few seconds worth of energy to start up, so it is almost always cheaper to turn them off than to leave them on and this is one of the most visible statements that you can make to the public about your commitment to the reducing your environmental impact.	None	CO ₂	£	<ul style="list-style-type: none"> Every employee is responsible for and aware of switching off lights when they are not needed. We shall continue to do this and ensure the rest of the team are doing so also. 	ALL	Daily
	Make better use of natural lighting. People prefer to work in natural light and using it saves money. You can: <ul style="list-style-type: none"> Keep windows and roof lights clean and switch off the lights where they compete with natural sunlight. Angle the blinds so that light is reflected off the ceiling. Trim vegetation preventing the light from entering the ground floor rooms or, ideally, replace it with low growing deciduous shrubs. 	None	CO ₂	£	<ul style="list-style-type: none"> Natural light is our preferred choice of lighting. Windows are cleaned periodically. 	ALL	Ongoing
	Clean and maintain the lighting systems. Traditional halophosphate fluorescent lights dim with age so it is important to replace them regularly. The efficiency of lighting systems (including skylights and windows) can deteriorate by more than 30% over two years due to the build up of dust and dirt. Get the most out of your lights by setting up a lighting maintenance and cleaning programme.	£	CO ₂	£	<ul style="list-style-type: none"> Windows, skylights, lampshades, lamps etc are checked & cleaned on a quarterly basis or as and when needed. 	AJ & NW	Ongoing
	Use task lighting. Save energy by encouraging staff to use energy efficient task lighting (e.g. 10w halogen capsules, 2w LED lamps or 11W CFLs) for desk/work areas and reduce background lighting.	£ - £	CO ₂	£ - £	<ul style="list-style-type: none"> An energy efficient desk lamp is available for staff to use when needed. 	All	N/A

Optimising Power Supply, Energy Prices and Green Electricity

No.	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/Completion date
6	Check your energy prices and source green electricity at the same time. There are currently hundreds of business energy tariffs on the market. Check that you are not paying too much for your gas and electricity by getting quotes from alternative suppliers or energy brokers.	£	CO ₂	£	<ul style="list-style-type: none"> To look in to the best tariffs available and implement where possible. 	LA/ AJ	Mar 2016

Transport

No. 7	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/Completion date
	Monitor your organisation's business mileage and fuel consumption and set targets for reduction. Monitoring fuel consumption will help you manage costs and cut emissions. A system based on fuel cards or mileage recorders will provide comprehensive mileage reporting at little extra cost.						
	Avoid unnecessary mileage. Carefully plan and schedule routes. Good route planning will reduce journey time and stress as well as saving fuel and careful scheduling should cut the number of journeys with half or empty loads.	None	CO ₂	£ - £	<ul style="list-style-type: none"> Continue to practice good route planning, lift sharing and use of public transport when possible 	ALL	Ongoing
	Service your vehicles regularly. Carry out regular weekly checks on your vehicles (tyre pressure, oil, coolant levels, etc.) and have them serviced regularly to ensure that they continue to run at optimum efficiency.	£ - £	CO ₂	£	<ul style="list-style-type: none"> Each employee is obliged to service and maintain their vehicles 	ALL	Periodically

Waste and Recycling

No. 8	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/Completion date
	Reuse. Before disposing of any resources check to see if they have a reuse value. The Eastex materials exchange facilitates exchanges between members with items and materials that they no longer require and want to pass or sell on with those that need the materials.	None	CO ₂	£	<ul style="list-style-type: none"> Woolley is registered as a member on the Eastex website in order to use the service in the future. Ensure all staff are aware of Eastex. 	AJ	Ongoing
	Recycle. Ensure that your company is sending the minimum amount of waste to landfill by: <ul style="list-style-type: none"> Identifying which materials you are currently recycling Identify if you can recycle more material types Maximise recycling rates – don't let recyclables sneak into your landfill bin Make it easy for staff to recycle by clearly labelling bins 	£ - £	CO ₂	£	<ul style="list-style-type: none"> We currently have excellent recycling facilities for the company. Each bin is clearly labelled and the vast majority of our waste is recycled. We have minimal landfill waste. 	ALL	Weekly
	Compost. If you have green spaces at your work consider composting your food and green waste. This will: <ul style="list-style-type: none"> Save money by reducing the amount of materials going into your bins Produce a quality soil conditioner for your outdoor areas. Lots of materials can be composted including; fruit peelings, food leftovers, tea bags, coffee granules, paper, cardboard and paper towels.	None - £	CO ₂	£	<ul style="list-style-type: none"> Staff use the compost bin on a daily basis. The compost is then used around the gardens or sometimes put in the council composting bin. 	ALL	Weekly

	<p>Purchase green office products. Identify where green, environmentally friendly, products and supplies can be sourced.</p> <ul style="list-style-type: none"> Use recycled paper for office use and marketing material Consider using vegetable based inks Buy recycled stationary e.g. www.thegreenoffice.co.uk 	£ - £	CO ₂	£ - £	<ul style="list-style-type: none"> Woolley do purchase local and eco-friendly products. All paper purchased is 100% recycled. Our supplier is kept under constant review to ensure that products meet required standards 	LA	Ongoing
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Water

No. 9	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/ Completion date
	<p>Assess your toilet cisterns. These account for over 40% of water consumption in the workplace. Check for the sound of continuously running water and replace faulty valves. Reduce the cistern volume of older toilets by fitting a hippo or cistern dam and save up to 20% per toilet.</p>	£	CO ₂	£ - £	<ul style="list-style-type: none"> Toilets are fitted with a water saving device. 	NW / AJ	March 2014
	<p>Check taps regularly. A tap dripping just two drops per second wastes nearly 10,000 litres/yr. A dripping hot water tap means you are paying to heat the water before losing it.</p>	£	CO ₂	£	<ul style="list-style-type: none"> All taps and pipes are checked for damage / leaks 	ALL	Ongoing
	<p>Water butts. Installation of a water butt can be used to reduce use of water for outdoor purposes.</p>	£	CO ₂	£	<ul style="list-style-type: none"> A water butt has been installed on the property. Water from the butt is used by staff to water the office garden and vegetable patch. 	ALL	Ongoing

Woolley Additional actions

No. 10	Action	Capital cost	CO ₂ saving	Cost saving	Action Chosen	Person Responsible	Review/ Completion date
	<p>Green Procurement. To purchase eco-friendly toiletries, stationary, food etc and where possible locally.</p>	£	CO ₂	£	<ul style="list-style-type: none"> To continue sourcing locally and buying the greenest products we can. Salad, fruit and vegetables are grown in the Rectory Cottage garden. 	ALL	Ongoing