



GREENING THE STEYNING CENTRE: A THREE-STAGE ACTION PLAN

Recommendations prepared by Steyning 10:10 Climate Action Group – Sept 2018

Context

The Steyning Centre was built in 1993 and provides a multi-purpose hub for the community, hosting a whole range of activities from toddler groups to horticultural shows. From an environmental perspective, the building starts from a reasonably good base; it is only 25 years old and was well built with reasonable levels of insulation, and double glazed windows. There is clear room for improvement, however, and over the past 8 years the Parish Council has been implementing a series of improvements designed to increase its energy efficiency. This Action Plan captures the progress that has been made so far, and charts a series of further steps for the Parish Council to consider.

Current Energy Consumption

Total fuel consumption, and the cost of energy, over the past year are spelt out in the table below. These figures are taken from utility bills, which include some estimated readings. No separate record of meter readings is kept at present. This would be an easy step to take, and would make the data much more accurate and usable.

	Consumption (kWh/yr)	Cost (£/yr)	Associated CO2 emissions (kg/yr)
Gas (July 17-June 18)	69,000	£4,488	12,700
Electricity (Sept 17-Aug 18)	29,600	£3,995	10,400
Total	98,600	£8,483	23,100

Energy Efficiency Action Plan

This Action Plan sets out progress to date and outlines a series of energy saving steps that would make most sense for the Steyning Centre going forward. It is based on review of the building by members of the Steyning 10:10 Steering Group, and discussions with the Parish Clerk, Parish Council members, and other key contacts.

Capturing wider benefits

Investments in energy improvements at the Steyning Centre have happened largely 'under the radar' up to now, with little publicity attached. Given the Centre's position as a community hub this feels like a missed opportunity. The Centre could be playing a leadership role in showing what is possible and demonstrating its commitment to a more sustainable local community, and planet.

So, for the future actions proposed, the recommendation is that the Centre factors in a public information element to showcase the improvements being made, publicise the energy performance of the building, and draw in the local community into a discussion on what more can be done.

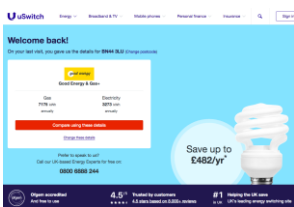
Phase 1 (2010-2018)

These actions have already been completed over the past few years.

Action		Cost	Benefit	Status
Installation of 1.6kW of PV panels on sunniest section of roof		Small (Grant received from Viridor Credits to cover costs)	Generates 1,800 kWh/yr Earns FIT payments of £940/yr Educational benefit from display panel	Completed Mar 2010
Replace central heating boiler with modern condensing boiler		Moderate (Circa £5,000. Figures t.b.c.)	Significant gas savings. New boiler 95% efficient.	Completed 2016
Change 6 roof lanterns with better-insulated and more effective replacements		Moderate (Figures t.b.c.)	Less draughty, better light. Some savings on heating bills (though hard to estimate)	Completed 2018
Replace large area (approx. 25m ²) of ageing timber windows and French doors on South side of building with modern double glazed alternatives		Moderate (Figures t.b.c.)	Less draughty, better light, improved security and access Some savings on heating bills (though hard to estimate)	Completed 2018

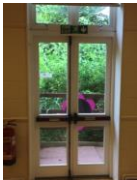
Phase 2 (Priorities for 2018-19)

These actions are top priorities over the coming year.

Action		Cost	Benefit	Status
Upgrade lighting throughout building to modern LED alternatives. Involves replacing approx 122 lights (combination of fluorescent, tungsten and halogen bulbs) and numerous fittings. Combine with info campaign aimed at the general public and local businesses & community groups		Circa £10,000	Approximately 54% cut in electricity consumption for lighting (equates to savings of approximately 5,800kWh + £790 + 2000kg CO2 per year) Improved light quality and responsiveness, plus lower cost for maintenance & replacement bulbs Information campaign will have valuable demonstration effect and encourage others to follow suit.	Autumn/ Winter 2018 Subject to funding
Put up a sustainability notice board in the Centre showing information on energy performance, and progress on this Action Plan and wider sustainability issues in the centre. Start collecting systematic energy consumption data.		£100	Share latest energy data. Showcase efforts being made to improve energy performance. Raise awareness of issues.	Steyning 10:10 to collaborate Spring 2019
Review energy supply contracts to ensure the Centre is getting best value for money, and consider switching to a green energy supplier. Consider installing a smart meter as part of switch.		Nil	Savings on energy bills to be determined. A switch to a green energy supplier would send a positive message to the community. A smart meter would give much better information on consumption trends.	Autumn 2018

Phase 3 (future steps)

These actions are suggested further steps to be considered for 2019 and beyond.

Action		Cost	Benefit	Status
Replace the remaining timber windows and exterior doors with modern double glazed alternatives		Moderate (Figures t.b.c.)	Less draughty, better light, improved security and access	To be scheduled subject to funding
Carry out an insulation survey focusing in particular on the Centre's roof space to see if additional insulation would be feasible.		Moderate (Figures t.b.c.)	Potential further savings in heating costs depending on findings of survey	To be scheduled.
Review the existing heating, ventilation and air conditioning system in the Centre to check for possible improvements		Potentially high (Figures t.b.c.)	With improved draft control, heat recovery from ventilation system becomes more relevant	Steyning 10:10 to lead a feasibility study.
Feasibility study to substantially expand the solar PV capacity on the Centre's roof, which is now feasible following recent felling of a series of large sycamore trees in a neighbouring garden. Consider including battery storage so Centre becomes largely self-sufficient.		High (approx. £25k for PV + £1k per kWh of battery storage)	16kW system could generate approx. 14MWh/yr Scheme could be approached as an innovative community energy project, with shares offered to the local community.	Steyning 10:10 to lead a feasibility study. Input to be sought from local energy groups such as Brighton Energy Coop & Community Energy South

