

Generation Green Energy Makeover

Ysgol San Soir



Agenda

- Your School – Current Energy Performance
- Proposed Energy Saving Measures
- Improved Future Energy Performance
- Implementation considerations
- Next Steps



Your School – Current Energy Performance

- From the billing data provided, the calculated school energy usage and spend is:

Electricity	55,541kWh	£5,774
Gas	124,729 kWh	£ 3,303
CO ₂ emissions	53.4 tonnes	

Proposed Energy Saving Measures

- School Metering Dashboard - Either a screen display in Reception for visitors to view and a link into IT network for pupils to view
- Daylight Control of existing main hall lighting
- Replacement of older internal lighting with LED units (School's contribution of £4,994)
- Replacement of external lighting wall mounted lighting with LED and dusk/dawn control
- Controls to improve boiler burner efficiency
- Solar PV

Energy Saving Measures considered but excluded

Funds do not allow for all Energy Saving Measures to be implemented. The following have been excluded

- Loft insulation
- Extend heating controls and heating system such that Main Hall can be heated independently for out of hours occupation

Options for Discussion

Behavioural Measures	
Display meter	IN
Fabric Measures	
Loft insulation	OUT
Plant Measures	
Internal lighting (T5)	OUT
Internal lighting (LED)	IN
Burner Management Unit	IN
Independent heating for Main Hall	OUT
Renewables	
Solar PV	IN

Loft insulation and independent heating of the Main Hall have been excluded as their paybacks are inferior to other measures.

Internal lighting can be replaced by either T5 or LED, the schools preference is for LED. With their contribution of c£5k the two options have similar paybacks. However the LED will give the additional benefit of less annual lamp replacements

Improved Future Energy Performance

- Our proposed energy makeover could save your school

Electricity reduction	30.0%
Gas reduction	9.0%
CO ₂ tonnes saved	12.6

	Financial benefit p.a.
Energy Savings (inc CCL)	£ 2,391
Feed in Tariff income (inc export)	£ 1,666
	£ 4,057

Next steps

- Agree which Option is appropriate for your school
- Arrange visits from technology specialists to finalise project details
- Finalise solution (based on findings from technical visits)
- Arrange Planning Applications for Solar PV
- Discuss installation and plan to suit with school activities e.g. some activities can be carried in term time, others will need to be when children are not present
- Agree a contract for the project between BG and your school