

# Overview



## The Energy Challenge

### A Difficult Economic Climate

The public sector is largely prohibited from investing in and implementing much needed energy efficiency measures due to their inability to fund capital expenditure programmes. The average capital required to install low carbon technologies in a school or college, for example is in excess of £500,000. Relevant managers have often identified the energy saving opportunities available to their organisation, but with annual budgets reduced or frozen, are powerless to implement them.

At the same time, fossil fuel prices are increasing relentlessly and the client is caught in a vicious circle of

increasingly expensive repair and maintenance costs for existing ageing equipment.

In the private sector, despite recognising the longterm benefits and savings of efficient low carbon technology, Financial Directors do not wish to enter into long term financial agreements (i.e. longer than three years, in which ROI is not achieved). As the returns do not meet these short-term criteria, energy managers in the private sector are often left frustrated with their inability to implement effective solutions.

## There's a solution! >>



*"Catalyst is staffed with some of the country's leading sustainability and energy experts. For more than 10 years our business has been focussed in energy management, procurement solutions and implementation. Catalyst provides a blend of consultancy that is rare in our industry, balancing technical expertise with the commercial reality of client requirements. We get personal; we'll work in partnership with you to understand your business, your ethical perspective and your carbon requirements. Of course, your future plans are paramount in developing the correct solution or strategy. We set a clear path with targets, review periods and milestones so we can work with you to optimise your energy position."*

# The Solution

Funded Solutions offers a risk-free alternative to existing and traditional capital improvement works financing, enabling clients to implement much needed energy efficiency improvements with costs repaid through bill savings.

Funded Solutions can be used to support the improvement of energy efficiency in non-resident public and private sector buildings through the introduction of low carbon technology, including:

- LED Lighting
- Solar PV
- Biomass
- Combined Heat and Power (CHP)
- Anaerobic Digestion (AD)

## Case Study 1

### Comprehensive School in South Wales

Measure	Original Annual Cost	Annual Cost Post Implementation	Annual Savings	Maintenance Savings	Net Annual Saving
LED Lighting	£48,209	£16,892	£31,317	£7,000 p/a on lamps	£38,317
Biomass Boiler	£38,448	£29,913	£11,535	£1,465	£13,000
Solar PV	N/A	N/A	£3,500	N/A	£3,500
<b>TOTAL:</b>				<b>£54,817</b>	

## Case Study 2

### A High School in Cheshire

Measure	Original Annual Cost	Annual Cost Post Implementation	Annual Savings	Maintenance Savings	Net Annual Saving
LED Lighting	£34,263	£12,166	£22,097	£3,000 p/a on lamps	£25,097
Biomass Boiler	£105,000	£78,500	£26,500	£2,200	£28,700
Solar PV	N/A	N/A	£3,500	N/A	£3,500
<b>TOTAL:</b>				<b>£53,797</b>	

# Key Aspects

Funded Solutions addresses the key challenge of financing non-domestic energy efficiency programmes whose return on investment is only achieved in the long term. Key aspects of Funded Solutions include:

- The finance is provided by institutional Green Funds which are prepared to take a longer-term view and receive their initial investment and return back over a period of 10 to 20 years: this is far longer than most bank financing arrangements.
- The model is not a financial agreement and operates off balance sheet, unlike loans for capital expenditure that take the form of asset finance, rental leases for example. It is based on the Green Funds retaining ownership of assets, with the benefitting organisation at no risk or increased liability.
- The Fund remains responsible for the maintenance, warranties and servicing of the equipment during the lifecycle of the technologies.
- The client benefits from an immediate reduction in energy demand, increased system efficiency, reduced long term maintenance costs and long-term bill savings, as well as permanently minimising the building's carbon emissions.

The payback period, where the investment of the Fund is repaid through fuel bill savings, is variable. In the case of Biomass or Solar PV technologies, for example, the cost of the investment is recouped entirely from RHI and FiT tariffs, enabling the client to feel the full and immediate benefit of the total fuel bill savings.

LED Lighting technology is similarly well established, reducing energy demand and carbon emissions on average by 65%; the substantial savings this generates allows the Fund to recoup its investment while also sharing the benefits of the savings with the client from day one.



# Eligibility

The eligibility criteria for Funded Solutions incorporates the following factors:

1. **Financial credit worthiness of the client.** As the Fund only benefits from its investment through the long term use of the equipment, it must feel confident that the client will be operational within the building(s) for at least a 10 year period
2. **The minimum level of energy costs** where the Funded Solutions model is feasible is normally in excess of £35,000 of combined utility bills
3. **The results of the surveys** will determine the feasibility of the installation of certain types of technology, with the different characteristics of each building being determining factors
4. **The return on investment based on capital expenditure costs** will need to meet certain benchmarks designated by the Fund as part of the qualification criteria
5. **Provision of ongoing access to the technologies.** The client must be prepared to allow access to the equipment for servicing, maintenance and parts replacement by the Fund

