




**SUSTAINABILITY REPORT 2009**





## Alumet Sustainability Report

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## 1. Scope

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This report is aimed at assessing where our company is situated with regard to its environmental inputs, outputs and impacts. The report will consider all activities at company headquarters in Southam as well as the procedures and processes under our control at all of our live installation sites.

## 2. Why report?

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The environmental report provides a framework for monitoring our environmental performance. This monitoring will lead to us identifying our most significant environmental aspects. Once these aspects have been identified, procedures can then be put in place to start reducing the impact we have as a company on our environment.

This reduction in environmental impact will translate to cost savings in the short, medium and long term.

## 3. What will this report cover?

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This report will provide an overview of our environmental commitments. This report will cover our Key Performance Indicators as set out in the Environmental Aspects Register.

The analysis will be split into the following reported areas:

- **energy** consumption
- **water** consumption
- the **volume of waste** that we send to landfill
- our **recycling** rate
- transport-related **carbon dioxide** emissions.

## 4. Executive Summary

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After the successes of 2008/2009, the industry wide recession brought everyone back down to earth with a bump. Environmental considerations have had to play a less prominent role as Alumet has struggled to survive. As Britain climbs slowly out of recession, and the company recovers to full strength we are once again moving into a position where we can pursue our environmental goals with vigour.


This year has seen a first for Alumet; the creation of a new post, Environmental Manager. It is hoped that this role will enable Alumet to reduce its environmental impacts whilst at the same time gaining a competitive edge over its rivals.

2009 has already seen Alumet sign up to and take advantage of many industry best practise environmental commitments, for example WRAPs: Halving Waste to Landfill and the Cycle to Work Scheme. As a company we are also getting ever closer to having our environmental management system (EMS) accredited to the ISO14001 standard.

To meet these defined objectives Alumet is implementing a company wide sustainability program. The new program will ensure a unified sustainability message, produce a cohesive strategic plan of action, connect the focus areas of sustainability and enable ongoing accountability towards a sustainable company culture.

2010 will see the reformation of the Alumet Green Team with new agendas and quantifiable goals. All meeting will now be chaired by the Environment Director and attended by the Environmental Manager. As well as the group having balanced leadership, the new framework creates the opportunity for sustainability decisions and policies to be accepted and supported by the appropriate decision makers. The Green Team's primary goal is to facilitate the implementation of the company's EMS and ensure compliance with the international standard ISO14001.

2010 will also see the introduction of a company wide intranet to convey messages (not solely environmental) to satellite and office based staff. This should prove an effective method of communicating our commitment to sustainability and ensure that all staff are exposed to a consistent environmental message.



Hopefully 2010 will prove to be the year that Alumet Systems (UK) Ltd sets the standard for environmental stewardship in the UK façade industry.

## **5. Report on our buildings**

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Our buildings have the largest impact on our environment. Therefore a brief synopsis of any improvements to the efficiency of the buildings will form part of the report on an annual basis.

### ***Heating***

2009 saw the installation of new energy efficient boiler systems in the factory. The mains gas systems throughout the factory floor have replaced the antiquated and inefficient oil fired systems that we inherited with the buildings. The weld shop heating systems underwent conversion from an oil fired set up to mains gas as well. These upgrades should not only produce savings in expenditure on fuel inputs, but reduce our carbon footprint as well.

### ***Lighting***

Late 2009 saw the renovation of the roof of Unit 1. The new roof has led to a huge increase in the influx of natural light during the day. This initiative will lead to less dependence on artificial light, reduced lighting costs and a reduced carbon footprint.

### ***Energy Production***

Alumet is looking to take full advantage of the government's Feed in Tariffs (FITs) which will become a reality from April 2010. At the time of writing, the cost/benefit relationship of integrating renewable technologies into our energy production systems is being considered. We are currently looking at pay back periods for the installation of solar thermal, photovoltaic panel, wind turbine, heat exchanger and rainwater harvesting technology.

## **6. Energy/Resource Initiatives**

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In 2009 The Green Team highlighted areas where it believed targets could be set for environmental improvement in the areas of energy and resource use reduction. These targets were recorded and methods of achieving them were implemented. The key chosen areas are as follows:

- energy consumption of lighting/reliance on artificial light
- energy consumption of idle electrical equipment
- energy consumption of heating systems
- diesel usage
- paper

## **7. Waste Initiatives**

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In 2009 The Green Team highlighted areas where it believed targets could be set for environmental improvement in the area of waste reduction. The key chosen areas are as follows:

- Removal of all COSHH material from site to be disposed of responsibly
- WRAP: Halving Waste to Landfill Commitment

## **8. Training and Awareness**

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Over the year we have implemented the following training:

- ISO14001

This was undertaken to promote awareness of our environmental obligations throughout the company. The training was designed to give managers and staff alike an overview of the ISO14001:2004 standard itself and to encourage everyone to incorporate environmental best practise into their daily work.

- Internal Auditor Training

Two members of the Green Team have been externally accredited by ISYS. This accreditation has given them the tools to undertake internal audits of our EMS. This should ensure continuing compliance with our Environmental Policy.

- Emergency Preparedness

All key staff have been trained and assessed for competency in spill response. The outcome of this training should greatly increase our preparedness for any spill eventualities.

As we are more prepared our potential to pollute the local environment is greatly reduced.

- Plant Refuelling: Drivers

All plant drivers have been trained up to the Alumet Systems (UK) Ltd standard for refuelling vehicles. The training should ensure that we continue to hold an impeccable 'No Incident' history with the Environment Agency.

- Company intranet

This should prove to be an effective tool for spreading environmental awareness to all staff, whether based at HQ or one of our satellite sites.

The intranet will include weekly Environment Tips, giving practical advice on ways to reduce one's impact on the environment.

## 9. Data and Analysis

### 9.1 Paper Usage

#### **FEB 2008 - JAN 2009**

##### **Southam & Sites**

Size	Boxes	Reams	Single Pages	Total Pages	Cost	TOTAL
A3	18 X 3	54	500	27,000	£ 285.66	
A4	290 X 5	1450	500	725,000	£3,291.50	
						<b>£3,577.16</b>

##### **Halesowen**

A3	12 X 3	36	500	18,000	£ 190.44	
A4	20 X 5	100	500	50,000	£ 227.00	
						<b>£ 417.44</b>
<b>A3</b>		<b>90</b>		<b>45,000</b>		
<b>A4</b>		<b>1550</b>		<b>820,000</b>		
<b>TOTAL</b>	<b>TOTAL REAMS</b>	<b>1,640</b>	<b>TOTAL PAGES</b>	<b>865,000</b>	<b>GRAND TOTAL (£)</b>	<b>£3,994.60</b>

#### **FEB 2009 – DEC 2009**

##### **Southam & Sites**

A3	10 x 3	42	500	21,000	£222.18	
A4	90 x 5	450	500	225,000	£985.50	
						<b>£1,207.68</b>

##### **Halesowen**

A3	5 x 3	15	500	7,500	£65.85	<b>£ 65.85</b>
A4	-	-	-	-	-	
<b>A3</b>		<b>57</b>		<b>28,500</b>		
<b>A4</b>		<b>450</b>		<b>225,000</b>		
<b>TOTAL</b>	<b>TOTAL REAMS</b>	<b>507</b>	<b>TOTAL PAGES</b>	<b>2,535.00</b>	<b>GRAND TOTAL (£)</b>	<b>£1,273.53</b>

2008-2010

Figure 1: Alumet's Total Paper Usage

#### 9.1.1 Methods

Paper usage was seen as one of the quick fixes Alumet could initiate to make a tangible, immediate impact.

The baseline was set as 2008 with usage figures being collated using figures for quantity of paper purchased.

A target of 10% reduction in total paper usage was made for 2009. A review of departmental processes was undertaken to identify areas where savings could be made. For example, the accounts department was identified as an area where unnecessary printing was taking place. This unnecessary printing was due to the process in place for the production and storage of Purchase Orders.

Office staff were also encouraged to print items double sided wherever possible. Staff were also encouraged to reuse 'scrap' paper where items were for internal use.

### 9.1.2 Conclusions

These data do not take into account the large variance in turnover between the two years. The report therefore has filtered these results down to a figure representing percentage of turnover. These figures are as follows:

**2008** £3994.60/27M x 100 = 0.15%

**2009** £1273.53/13M x 100 = 0.09%

This translates as a reduction in paper usage of 40%. The target for reduction was 10%. We can therefore say that the target has been reached and surpassed.

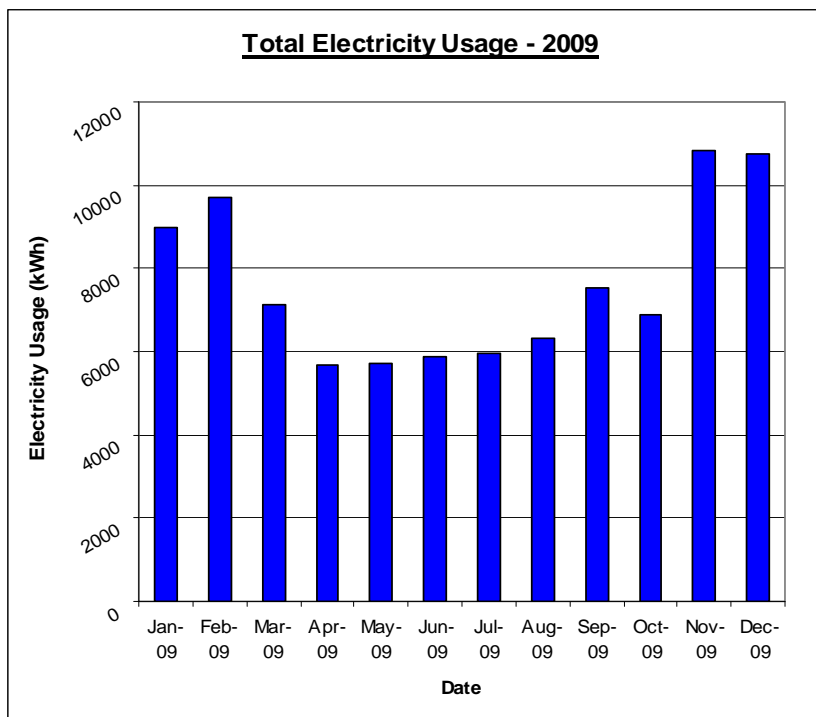
### 9.1.3 Recommendations

We have far exceeded our goals on this front, but we must continue to reinforce the initiatives that have been working. We cannot let people slip into their old habits and must move forward.

**9.1.3a** The IT Department will be encouraged to procure printers that print double sided. Currently there are a handful of printers that do not possess this function. This initiative should see the levels of paper bought drop further.

**9.1.3b** Begin to divide paper usage figures into departments. We will then publish a league table on the best (and worst) figures. This will hopefully incentivise people to cut their paper usage further.

## 9.2 Electricity Usage



<i>Date</i>	<i>Total Usage (kWh)</i>
Jan-09	8977
Feb-09	9693
Mar-09	7109
Apr-09	5683
May-09	5729
Jun-09	5867
Jul-09	5978
Aug-09	6312
Sep-09	7550
Oct-09	6906
Nov-09	10847
Dec-09	10767
<b>TOTAL</b>	<b>91814</b>

Figure 2: Alumet HQ's Total Electricity Usage 2009

### 9.2.1 Methods

Electricity usage is one of Alumet's largest financial outlays. 2009 will be taken as a benchmark year and a target of 10% electricity use reduction has been set against turnover. Meter readings are taken manually on a monthly basis and compared against bills received to ensure accuracy.

Areas of inefficiency are currently being assessed and findings will be displayed in a separate report.

### 9.2.2 Conclusions

As 2009 is the benchmark it is difficult to make any conclusions other than the fact that we see a trend towards increased usage in the winter months. This will be due to the colder temperatures and less natural light at this time of year. October is the only month that falls outside of the trend. It is assumed that October was unseasonably warm. Spring and summer usage is fairly even with no large anomalies.

### 9.2.3 Recommendations

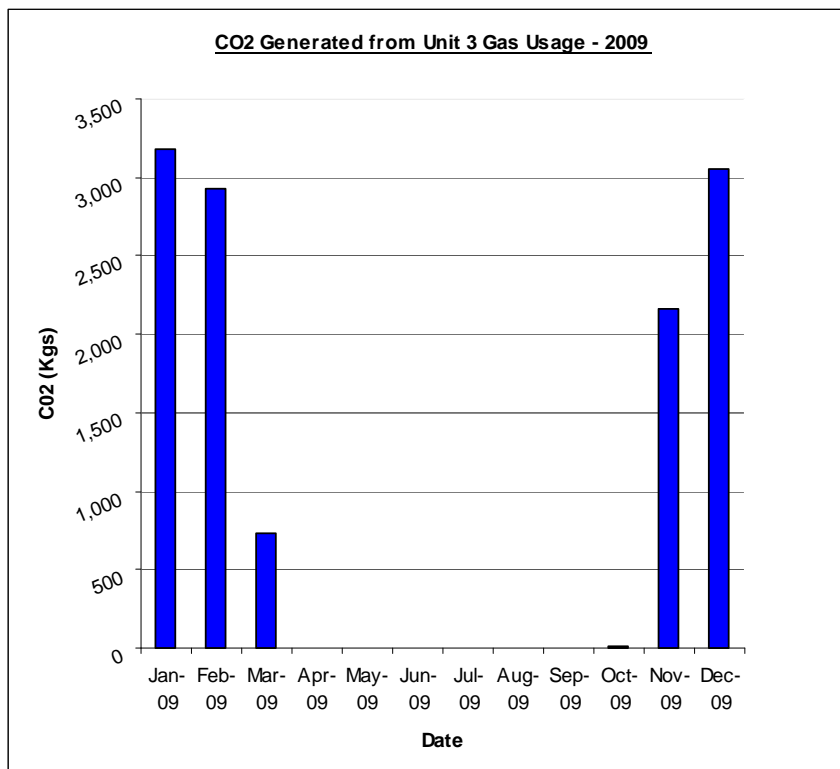
Due to the trends identified it appears that the spikes in electricity usage are caused by external environmental conditions. It would follow therefore that our resources are best directed at minimising these external effects on our operations.

The first stage is to have a carbon generation survey done. This will be undertaken free of charge by the Carbon Trust. They are coming in to survey our lighting and manufacturing procedures.

The findings of this survey will give us a better understanding of the inefficiencies in our operations. We will therefore be in a position to make decisions on where resources would be best spent to optimise our efficiency and thus save money. The timing of this survey is crucial if we are to take advantage of the following government schemes which begin in April 2010.

- Feed in Tariffs
- Enhanced Capital Allowance

## 9.3 Natural Gas Usage



Month	Usage (m3)
Jan-09	1245
Feb-09	1310
Mar-09	335
Apr-09	2
May-09	0
Jun-09	0
Jul-09	1
Aug-09	0
Sep-09	0
Oct-09	6
Nov-09	996
Dec-09	1406
<b>Total</b>	<b>5301</b>

Figure 3: Alumet HQ's Total Natural Gas Usage 2009

### 9.3.1 Methods

Natural gas is used to supply the heating system in Unit 3. 2009 will be taken as the baseline year. A target of 10% reduction of gas usage against turnover in 2010 has been set. Meter readings are taken manually on a monthly basis and then checked against bills. Any potential areas of inefficiency are being assessed and findings will be displayed in a separate report.

### 9.3.2 Conclusions

As 2009 is the benchmark it is difficult to make any conclusions other than the fact that we see a trend towards increased usage in the winter months. This will be due to the colder temperatures and the necessity of keeping a legal ambient temperature in the unit. Professional Energy Solutions (PES) have conducted a small survey of our premises and their recommendations are contained within the appendices.

### 9.3.3 Recommendations

As with electricity usage the trends identified appear to be caused by external environmental conditions. It would follow therefore that our resources are best directed at minimising these external effects on our operations.

The survey carried out by PES seeks to identify where the most effective use of resources will be.

## 9.4 Water Usage

Dates Covered	Meter #	Location	Total Usage (m3)
15/1/09 - 15/1/10	44333977	Weld Shop	375.67
15/1/09 - 15/1/10	831074723	Rear Jordan House	3
12/1/09 - 15/1/10	601069542	Rear Jordan House	2
12/1/09 - 15/1/10	510042448	Senator House 1st Floor	15
12/1/09 - 15/1/10	510042448	Unit D	175
12/1/09 - 15/1/09	510014951	Jordan House Ground Floor	353
12/1/09 - 15/1/10	510042448	Jordan House Ground Floor	4
<b>Total</b>			<b>927.67</b>

Figure 4: Alumet HQ's Total Water Usage 2009

### 9.4.1 Methods

2009 is the benchmark year for reporting on water usage. Meter readings are taken manually and checked for accuracy against bills. No recommendation for reduction has yet been made.

### 9.4.2 Conclusions

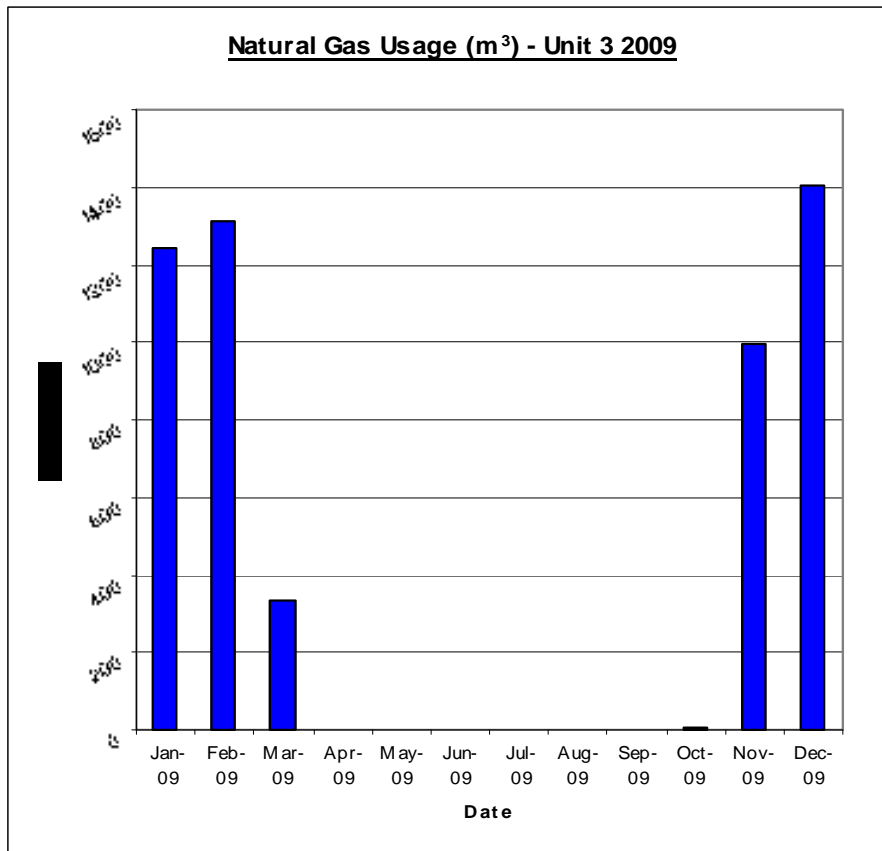
As 2009 is the benchmark there are no real conclusions to be drawn.

### 9.4.3 Recommendations

It is recommended that measures are put into place to reduce water consumption on the site. This should include, but not be restricted to:

- Cistern/flushing optimisation
- Rainwater butts for feeding pressure washers
- Rainwater harvesting systems to supply a proportion of grey water
- Fit automatic and timed flushes to urinals, so that they only flush when needed, and not at night when no-one's using them
- Fitting water saving devices to taps e.g. TapMagic flow restrictors
- Regular checking of water meters to see if we are leaking any water at night.

## 9.5 Heating Oil Usage



Month	Usage (m³)
Jan-09	1245
Feb-09	1310
Mar-09	335
Apr-09	2
May-09	0
Jun-09	0
Jul-09	1
Aug-09	0
Sep-09	0
Oct-09	6
Nov-09	996
Dec-09	1406
<b>Total</b>	<b>5301</b>

Figure 5: Alumet HQ's Total Gas Usage 2009

### 9.5.1 Methods

2009 is the benchmark year for reporting on oil consumption. The figures are an estimation based upon tank fill levels. Unfortunately our main systems are not gauged and therefore a more accurate picture of oil usage is not available.

### 9.5.2 Conclusions

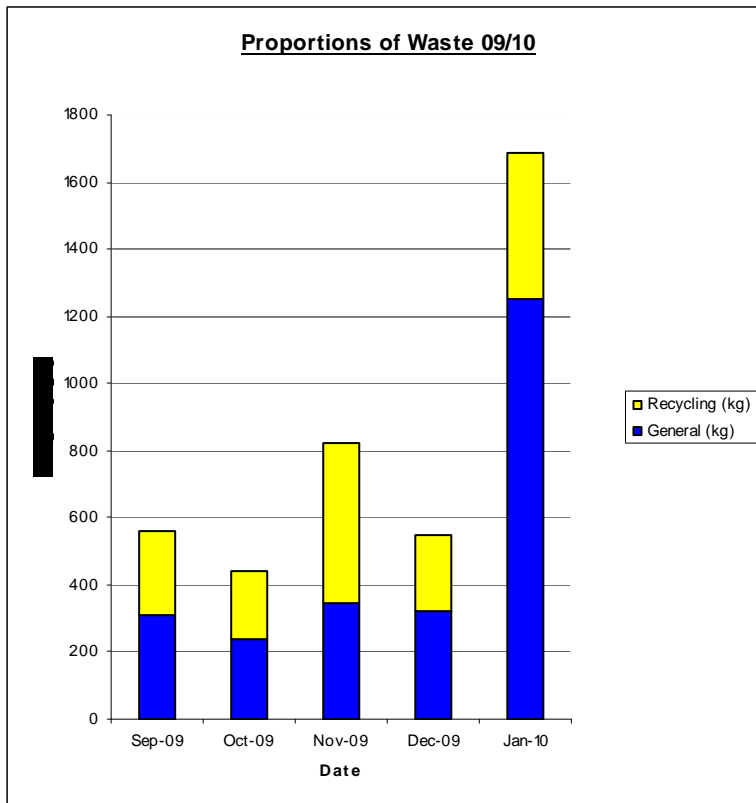
It is fair and accurate to state that oil consumption in 2009 is dramatically decreased from 2008 levels. This is due to the installation of gas fired heating systems in the main factory. The trend is towards greatly increased use in the winter months as oil for heating is used. As with conclusions drawn from natural gas usage potential savings could be made through more efficient insulation of the factory space and more care being taken to keep the warmth in during operations in the day.

### 9.5.3 Recommendations

Where applicable we should install gauges onto our tanks to give a much more accurate representation of the system's usage. This should enable us to make more informed choices in the future concerning heating systems.

## 9.6 Waste Management

Figures are only available from September 2009, so a baseline year cannot be set. We are in the process of setting it now. In September 2010 quantifiable targets can be set. Currently only general recommendations can be made which will hopefully improve our performance on sustainable waste management.



Date	General (kg)	Recycling (kg)	Total Waste
Sep-09	310	250	560
Oct-09	238	202	440
Nov-09	347	477	824
Dec-09	321	230	551
Jan-10	1253	434	1687

Figure 6: Alumet HQ's Total Waste 2009/2010

### 9.6.1 Methods

Fortress, our waste management company, has supplied the figures for the past five months. Each of their waste management vehicles is fitted with a waste sensor that is accurate to the nearest kilogram. Currently we are having weekly pick-ups regardless of whether the bins are full or not.

### 9.6.2 Conclusions

Waste levels seem to be fairly regular, except for the spike in general waste in Jan 2010. This spike can be attributed to waste generated by the upgrade to the roof on Unit 1. Waste levels will continue to be monitored.

### 9.6.3 Recommendations

There are external factors which should be guiding our waste management policy. Fortress has recently announced that they are now able to recycle much more than was previously possible. This new capacity will include plastic of all types. As a large proportion of our supply chain use plastic in their packaging there should be great scope for us to improve our recycling rate.

Due in part to market pressures we have recently signed up to Waste and Resources Action Plan (WRAP)'s Halving Waste to Landfill by 2012 Commitment. The challenge of this voluntary target has been accepted by Bovis, Vinci, BAM, Laing O'Rourke and many notable others.

It is my firm belief that we will be able to better the target and state publicly that we send **zero** waste to landfill by the end of this quarter. It is correct to say now that we send zero waste to landfill as all of our waste currently ends up at Ling Hall, Rugby where all waste is incinerated and the resulting energy is fed into the National Grid.



## 9.7 Diesel Usage

Figures are available from March 2009 onwards. Our baseline usage will be set in March 2010 when the figures have been collated.

Due to the disproportionately large quantity of data on this subject and the sensitivity of the information, reporting will be carried out via a separate Diesel Usage report. This will be made available to directors in due course.

Although no baseline has been set yet, a target for reduction has been set for 2010/2011 at 10%.

The figures will continue to be monitored and the results published at this time next year.

### Appendix 1: General Recommendations

**I have put together items that I believe would be beneficial to pursue. I have put them in what I believe to be priority order.**

#### Procedural Change

The EMS needs to be reviewed on a defined, regular basis by top-level management. Reports from the Environmental Manager need to be reviewed and recommendations closed out in a timely fashion.

Green team needs to meet on a monthly basis with minutes written up and items designated to members to close out.

Internal auditing schedule needs to be stuck to much more rigidly. Audits need to be conducted and then the findings reported in a monthly report to the board. Any non-conformances need to be dealt with immediately and any issues that cause concern need to be closed out in a timely fashion.

#### Greening our Business

The recommendations contained above are very specific to their particular area. The real challenge lies in embedding the concept of sustainability into all of our processes and operations. We must see this as an opportunity to drive change in our organisation towards a more efficient future. Obviously increases in efficiency will drive down operational costs and increase our profitability.

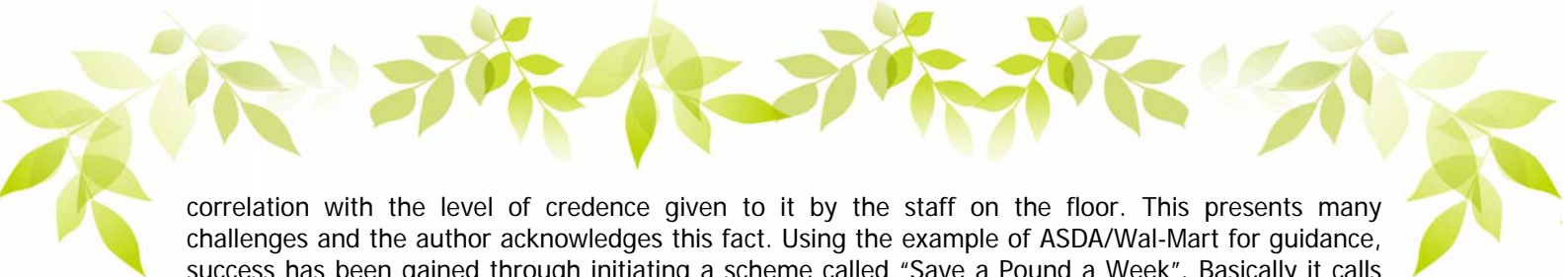
Below are listed a number of processes that I believe to be fundamental in driving forward environmental awareness and ultimately sustainable change in our business:

##### a. Sustainability Champions

I propose the appointment of Sustainability Champions. These Champions must have sufficient responsibility and ability to change the mindset of their direct colleagues. The Sustainability Champions must also be located within the areas of the business that have the greatest effect on our processes and operations, e.g. Production Manager, Contracts Manager or Works Manager. The phrase 'Sustainability Champion' would appear on their business card and hopefully would be something to be proud of. Their remit would be to implement goals and objectives in their sphere of operation. The allocation of a title is not enough. To achieve success with this scheme we need to incentivise its implementation through bonuses that are not based on financial targets, but based on achievement in the areas of sustainability, health and safety or community engagement. To achieve the successful take up of this scheme we must arm the selected staff with the skill set to effect change. This will mean sending staff on suitable training courses and following it up with continuing professional development. We must also settle on clearly defined targets and ensure that these targets are communicated effectively.

##### b. Greening from the ground up

Drawing on lessons from large corporations such as ASDA/Wal-Mart, it is essential that if we are to succeed in greening our business it must be taken on at factory floor level. Any initiative that we implement, whether it be energy reduction or waste management oriented will succeed in direct



correlation with the level of credence given to it by the staff on the floor. This presents many challenges and the author acknowledges this fact. Using the example of ASDA/Wal-Mart for guidance, success has been gained through initiating a scheme called "Save a Pound a Week". Basically it calls on all staff to do their bit to help reduce costs around the company. This can be 'sold' by explaining to staff that if we can cut costs and become more efficient we can in turn become more cost effective. It can be explained that this cost effectiveness will increase our competitiveness in the market place improving job security and potentially improving working conditions.

The scheme could be implemented initially through simple measures such as providing proper training on the most effective/efficient use of all of our equipment. For example, not turning on machinery until it is required and then turning it off when the operation has been completed.

#### c. Renewable Energy Generation and Feed in Tariffs

The tariffs are due to commence in April 2010. Basically the Feed in Tariff (FIT) is a method of incentivising the uptake of renewable electricity generation systems. The rate of return that we can expect to receive is dependant upon the quantity of electricity we plan to generate and the method by which we plan to generate it. It appears that PV solar generation would be the most effective use of our resources and guarantee the greatest rate of return for our requirements.

How it works:

The FIT guarantees a payment from the government for each unit (kWh) of electricity we produce via renewable generation. For Solar PV generation this payment is guaranteed initially for 25 years. The life of a PV panel currently extends to 25 years with most warranties covering them up until the end of this period. This rate of return is dependant upon the amount of energy produced and works on a sliding scale. For smaller scale generation the tariff paid out is larger and vice versa. As a ballpark estimate: for a mid sized generation centre the estimated payback period is 9 years. That would afford us 16 years of 'free' generation with the added bonus of getting paid for all of the energy generated. The other benefit of the tariff is that if we are able to finance enough equipment to generate energy that is surplus to our requirements we will have the potential to receive an additional 8p/unit produced.

Of course this takes into account the tangible cost benefits of employing the technology. What are unknown are the intangible benefits, i.e. how will our clients view our drive towards sustainability. One must assume that in a time when being seen to be green is in fashion, generating our energy through sustainable means can only serve to improve our standing. If we also take into account the push towards Zero Carbon construction by 2016, making the switch to photovoltaic energy generation could be one selling point that gives us an edge over our rivals.

It is worth noting that the Carbon Trust is running a scheme that may provide some or all of the capital costs of this venture:

- The Carbon Trust 0% business loan. Under this scheme multiple loans are available up to £500,000 depending on the amount of energy saved. These loans can be paid back over 4 years, so our payback period should effectively 4-5 years.

Next year will see the introduction of the Renewable Heat Incentive (RHI). The RHI will work in much the same way as the FIT, but cover the production of energy for heat. This is a scheme that will require some attention before April 2011.

#### d. Other Green Energy Schemes – Financial Incentives

There is potential to take advantage of the government's Enhanced Capital Allowance (ECA) Scheme. The scheme enables a business to claim 100% first-year capital allowances on their spending on qualifying plant and machinery. There are three schemes for ECAs:

- Energy saving plant and machinery
- Low CO<sub>2</sub> cars and natural gas and hydrogen refuelling infrastructure
- Water conservation plant and machinery

Businesses can write off the whole of the capital cost of their investment in these technologies against their taxable profits of the period during which they make the investment. This can deliver a helpful cash flow boost and a shortened payback period.

Source: [eca.go.uk](http://eca.go.uk)

### Marketing our green credentials

From an internal point of view it is good that we are taking our environmental responsibilities seriously. A greener business should translate into less time off for sickness, improved working conditions and a sense of pride in working for a company at the very top of its industry. Externally, marketing these changes will be essential. Currently we have the jump on our four leading competitors in this field. After ISO14001 accreditation has been gained, it is my intention to continue the greening of this business. Below I have outlined the main areas in which I believe that we need to market our green credentials.

There are also many environmental standards/certifications that we should pursue. We can then present the logo on our website and literature.

ISO14001: 2004 – This process is underway and we should hopefully receive accreditation by the end of April.



WRAP: Halving Waste to Landfill by 2012 – I have also signed us up to this. We should be able to use the logo now. I will check with WRAP to make sure.



Carbon Trust: Reducing CO2 Year on Year - This is a good one for external parties as it demonstrates a culture of continual improvement on the environmental front.



### Sustainable Procurement

Sustainable Procurement is a concept that will come more and more to the forefront as the main contractors seek to manage the environmental impact of their supply chain. A PQQ format has already been agreed by the necessary members of the Production Department. All that remains now is to get the PQQ circulated and the relevant buyers educated on the principles behind it.

### 'Cradle to cradle' approach

The new sustainability buzz phrase. Life cycle assessments are no longer looking at a products life from 'cradle to grave'. Now the emphasis is on closing the loop so that products can have their impacts fully assessed all the way to being reused or recycled at the end of their 'productive' life. The CAB has put out a press release on this subject which talks up the recyclability of aluminium and it's sustainability as a resource. I believe we need to get a section on the website titled Alumet – Cradle to Cradle Product Solutions.

### Whole Life Costing

This goes hand in hand with the above and is another current industry buzz phrase.

The UK government has taken a decision to make all construction procurement choices on the basis of whole life costs - HM Treasury guidance stipulates this specifically.

The use of life costing is important to the private sector as it ensures long term profitability of the building. The *lowest cost now* culture is incompatible with long-term profitability; long-term energy efficiency; and systems which are to satisfy end-user requirements.

I don't know how far we want to go with this particular item, but it is definitely something to look at and maybe be able to offer on our products. It may not be being asked for now, but I am pretty sure it will be in the near future. I have a basic knowledge of this system, but would require further training to carry out this function.

### Life Cycle Assessment (LCA)

LCA is tied in with Whole Life Costing. I believe it would be a smart step to carry out LCA's for our main product range. Once again it is something that shows we are being proactive in our environmentally minded approach. I have a basic knowledge of this system, but would require further specific training to carry out this function.

### Carbon Foot printing

Using the Carbon Trust's Carbon Foot printing tool we can gauge the work done on this subject. This is a very basic instrument so if we require further information further training may be required.

External sources will want to see a commitment to continual improvement and the Carbon Trust system is a great way of demonstrating our commitment.

After we have our ISO14001 Accreditation in the bag I will move to get us accredited to this standard and that will allow us to use the following logo:



### Increasing the Recycling Rate

Increased awareness and ease of recycling in the factory is the key to increasing our recycling rate. An increased recycling rate will not only show external parties that we are being proactive in our waste management practises, it will also serve as a method of connecting the factory staff into our green strategy on a daily basis. Obviously training will have to be given on any new procedures, but that will not be too costly or time consuming. I am planning to implement these measures after ISO14001 accreditation has been gained.



## Appendix 2: Expanding the 'green' output of our business

### Louvre/Plant room Solar PV generation

I believe that we need to start researching the cost effectiveness of PV as a technology that we can either include in our fabrication process or simply install. Potential areas for installation/fabrication are as follows:

- As part of the curtain wall/rainscreens
- Mounted on louvre blades
- Mounted on blades of brise soleil
- Mounted on the roofs/walls of plant rooms.

It makes sense to put the solar PV in the very place that has the most solar gain so brise soleil blades make the most sense to me. It seems complex but there are already people doing it. (Solar Century)

We would then need to address the knowledge gap of our fixing teams. It is claimed in many places that the training required to fit a solar panel should not take longer than a week.

We also need to become an accredited supplier and installer under the Micro-generation Certification Scheme (MCS).

I am currently researching the potential in this.

The Carbon Trust will be opening the tender process for Applied Research Funding grants from 24 May 2010. I believe that we could apply for funding to develop a British Louvre/Brise Soleil Solar PV System. I am researching whether any other UK companies are currently building this technology.

Full details of the scheme can be found at:

<http://www.carbontrust.co.uk/emerging-technologies/help-develop-my-technology/pages/default.aspx>

### Solar Thermal Installation: April 2011

The Renewable Heat Incentive (RHI) Scheme will most likely begin in April 2011. This scheme will take a similar theme as the Feed in Tariff. I know that this is over a year away, but it may prove a wise move to begin looking for partnerships in this industry. The details have not been finalised yet, but I would imagine that we would again need to be an accredited installer.

## Appendix 3: Energy Audit – Initial Findings



Our Ref: PES/AL001  
Alumet  
Senator House  
Bourne End  
Southam

12 10 09

Dear Lee

### **Re: Energy issues**

Further to our meeting and recent site visit please find listed below some areas that may require attention within the infrastructure of your premises located in Southam Warwickshire. They are by no means a complete survey but an overview of issues we found on our initial visit.

### **Current issues**

- At present the oil fired boiler located in the plant room is not Energy efficient and coming to the end of its designed life span. The oil tank is also not to current regulations and would suggest this be changed not only due to an environmental issue but from a safety issue.
- Redundant warehouse heaters should be made safe and removed.
- A new gas condensing boiler would reduce many issues you have at present if gas can be supplied to the premises.
- Oil lines that are redundant should also be removed and made safe as these could rupture and contaminate the surrounding area.
- Controls for the boiler are on constant and should be made good.
- A/C units are able to be run at the same time as heating this could lead to both units fighting to control the office environment.
- Insulation not to current standards in the offices.
- Redundant offices still have heating being supplied to them via the central heating system.
- Lighting is being left on in areas that do not require them.
- Toilets that are no longer in use should be isolated and decommissioned. Water supplies to these areas could harbour Legionella and result in health and safety issues.
- Thermostatic radiator Vvs need installing in some areas and making good in others.
- Lighting could be installed on a Pir in some areas to reduce energy usage especially in the toilet areas.

We trust the above is in line with your requirements.

Yours Sincerely,  
For, **Professional Energy Solutions**

Paul Ellis-Smith  
Company Director