

Case Study - Greenhouse Graphics Ltd

Company Background

Established in 1993 as a technology based graphic design and print company, Greenhouse Graphics, located in North Hampshire, specialises in business-to-business short run full colour printing of marketing materials and stationery. The company has six employees.

Sustainability Initiatives

In the printing industry approximately 90% of print companies are small companies. The printing industry is considered to be responsible for around 10% of Volatile Organic Compounds emissions, with small companies having a significant impact. Greenhouse Graphics is unique in its active approach towards becoming a fully sustainable business, despite being a micro-business that is not forced to do so by legislation.

Greenhouse Graphics strives towards the sustainable use of the natural resources it uses, and the minimisation of its printing operations' environmental impact.

Summary of Key Achievements

- National Print Week Awards, 2004: Environmental Company of the Year - Commendation - Equal second 
- Winner of the 2004 Carbon Trust Environmental Awards 
- Runner up in the Hampshire & Isle of Wight Sustainable Business Awards, 2004 
- Winner of the Barclays Asset Financial Small Business of the Year Award in 2002, and runner-up in 2003 
- Gazette Newspapers Business in the Community Award - Runner up 2004  
- 80% of the company print machines run without chemicals 
- 100% alcohol free dampening in print production facilities has been achieved 

KEY



Contribution to a Sustainable Economy

Greenhouse Graphics strives to support local suppliers. The majority of its paper is supplied by a local merchant.

For the past few years Greenhouse Graphics has provided work experience opportunities for pupils from schools in Hampshire. The company provides 'live' jobs for either a one or two week duration and encourages the pupils to follow their designated project (e.g. producing postcards or business cards) through the entire printing process.

Enhancing Environmental Quality

Through its annually updated Environmental Policy, Greenhouse Graphics implements a variety of initiatives that are summarised below.

This year the company invested £20,000 in state of the art printing equipment. Modern technology has offered the following benefits:

- 80% of the printing units now run chemical free, and the number of units that use chemicals has been halved
- 100% alcohol-free dampening in print production facilities has been achieved with new equipment (e.g. the Varn Unit) thus reducing ground ozone from Volatile Organic Compounds (VOCs)
- The installation of the Digital Imaging (DI) printing press in 2001, a waterless press of which there are only 130 worldwide, has reduced water consumption and consequently more work (approximately 80%) is now directed towards this press



Cleaning the DI Printing Press with rags



A range of eco-products used in Greenhouse Graphics' printing process

- The computer-to-plate system, installed in 2004, has eliminated the need for aluminium plates (which were previously recycled) and reduced the volume of processing chemicals. The small quantities of waste chemicals produced are stored in a lockable steel container to prevent leakage to groundwater, before being recycled by J&G Environmental
- Paper folding and booklet making machinery has been purchased to improve efficiency and accuracy, and thus minimise waste – e.g. the booklet making equipment stores the specifications of previous orders, which can then be used

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again on regular jobs reducing the volume of 'trials' by approximately 15%. In addition, the company's internal computerised management system enables those jobs that exceed normal waste levels to be tracked back to analyse where, what and how extra wastage was created

- The company has converted to renewable and biodegradable vegetable oil based inks as their four colour standard, replacing conventional non-biodegradable, non-renewable mineral oil based inks extracted from crude oil
- A readily biodegradable wash is used for cleaning dampeners, blankets and ink rollers

The company has developed its own software system, which it has been using over the past three years. The digital system processes orders, and tracks jobs to enable clients to order and monitor their orders on-line. The system results in less paper usage, and a reduction in transport. Development is currently underway to enable the system to monitor and control the company's waste production and efficiency against pre-determined standards that the company sets itself.

In 2004, two environmental audits and one case study were undertaken at the premises, the results of which were favourable and the recommendations carried forward:

- In February 2004, The Environment Centre in Southampton audited the premises confirming its energy efficiency and minimal environmental impact
- In April 2004, six Reading University students undertook a case study of the premises to assess their carbon consumption, concluding that electricity was the company's major source of consumption. The study has encouraged the company to approach renewable energy suppliers
- Envirowise recently conducted an environmental audit of the premises and recommended several ongoing actions for the company

Greenhouse Graphics uses a standard stock that is 50% recycled and uses de-inked fibres from pre and post consumer waste. In addition, chlorine is not used in the de-inking process and pulps are chlorine free.

The company actively strives to reduce waste through waste sorting and recycling of office waste, washing and recycling rags, using biodegradable cleaning fluids and recycled toilet paper, and 'Evolve' 100% recycled paper for laser printing.

The company liaises with suppliers to find sustainable alternatives wherever possible. For example, it has recently identified a supplier of DI printing press plates that will recycle the plates after use.

Energy efficiency is encouraged through promoting the switching off of lights, computers and machinery when not in use, and keeping doors closed when airconditioning or heating are in operation. 10% of light bulbs have been removed to reduce energy consumption.

Currently renting, the company plans to buy its own premises and takes into account environmental credentials such as an insulated roof, water minimising toilets, light sensors and solar panels. It is

anticipated that the solar panels will provide approximately 20% of the company's electricity. The company has consulted The Carbon Trust about such a building's credentials, and plan that the new premises will offer increased control over resources.

Greenhouse Graphics was one of the first companies to develop PDF proofing for its clients in 1995, and continue to do so, thus minimising transport, pollution and paper usage.

Travelling resources and subsequent emissions are minimised by the possibility of working from home; software and networking capabilities to log-on to the system from home are provided, as well as working job folders. However, due to the size of the company working from home is not often feasible.

Improving the Social Wellbeing of Stakeholders

The company is currently working towards its Investors in People Certificate, which it expects to achieve by March 2005. To date, a 60-page Employee Handbook has been produced, with assistance from an external HR agency during the implementation period. Meetings with the HR company are held on a quarterly basis to discuss issues such as employment law and all other human resources issues.

The company regularly contributes to local schemes and charities through sponsorship and donations:

- For the past five years monthly contributions have been donated to the World Wildlife Fund, the People's Dispensary for Sick Animals and the Dogs Trust
- Over the past three months, £2,000 in sponsorship was donated for fundraising to build a night shelter for street children in Goa, India. To support the sponsorship, 20,000 raffle tickets, 10,000 leaflets and a banner were donated
- The company prints free leaflets and stationery for charities such as the Well Care Charity for single parent families and the Prostate Cancer Charity

Employee training is provided, examples of which have included day-release HND qualifications, the NVQ qualifications and First Aid Training. Production staff training is supplied by specialist engineers coming to the site to deliver training days, and the company itself provides on-the-job training for production, graphic design and administration.



Two members of staff outside Greenhouse Graphics

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