

# Local book company makes low carbon headlines

Manufacturing Sector  
Low Carbon Case Study  
TJ International



This case study demonstrates the business benefits of **improved resource** and **energy efficiency** to a local manufacturing company.

TJ International Ltd has long been recognised in Cornwall for their commitment to the environment. The Company continually looks to develop more ecologically responsible methods of planning, printing, producing and distributing books. In addition the Company pro-actively strives to improve environmental standards across the book manufacturing industry and other sectors. This has not only led to an excellent environmental image across the company's client base and supply chain but has also led to significant cost savings, including:

- **Over £70,000** saved through implementation of the recycling scheme
- **A further £2,500 saved** since 2008 by reducing waste to landfill through eliminating and recycling further waste sources.
- **Over £50,000 revenue generated** through recycling waste streams.
- **A Power Perfector** was installed in 2006 to optimise and improve source voltage leading to an 11% reduction in energy use.
- **A saving of 42,000 kWh and £5,000** from installation of energy efficient lighting with occupancy controls in the warehouse and digital areas.
- **An 80% reduction** on the Company's Climate Change Levy charge, realised through meeting energy and carbon saving targets set as part of the Climate Change Levy Scheme

Two key elements form the heart of TJ International's environmental approach; the Company's environmental policy and their robust environmental management system.

In 2000, TJ International received certification to ISO14001 Standard in response to their Environmental Management System. This System, which was developed in-house, is driven by environmental objectives and targets to continually reduce waste, energy and resource use. In conjunction with this the Company has an environmental policy in place which is easily accessible to all staff and is published on the company's website for use by clients.

TJ International's environmental commitment is further reinforced through its Environment Committee which was established in 2004. The Committee is made up of members from across all departments, who meet quarterly to discuss and resolve environmental issues.

## Involving staff every step of the way

To sustain their environmental commitment, TJ International has devised its own in-house compulsory training programme: 'Environmental Awareness in the Workplace.' In addition, NVQ, ISOH and NEBOSH training courses are available to staff to improve environmental awareness

across all departments. TJ International has also signed up to the government's Cyclescheme initiative, offering tax-free bikes to employees to encourage cycling to work.

## Comments from the Environment Agency:

Let's hope you can spread your best practice and encourage others to follow in your footsteps.

Our work would be a lot easier if more industries looked to you as an example of best practice.

## Background

TJ International Ltd was established in Padstow in 1970. The manufacturing plant now covers 6000 sq metres, employs 125 personnel and generates over 6 million books per year.

At TJ International pride is taken to deliver a superior service, complemented by the latest technology. The dedication shown to the refinement of products and services has been ongoing, achieved through continuous training and environmental programmes that require the endorsement and participation of the entire company.

**TJ International Ltd has taken a series of proactive steps to reduce the environmental impact of the materials they use. These include:**

- Upgrading aluminium plates to use thermofuse technology. These plate processors take significantly less cleaning, need no developer and use a fraction of the water needed previously.
- Replacing conventional petroleum based inks with vegetable based inks containing lower rates of volatile organic compound emissions and allowing paper to be recycled much easier.
- Inks are now supplied in large drums instead of smaller ink tins. The drums are re-used saving large numbers of tins having to be recycled.
- Transferred from using 11% Isopropyl Alcohol (IPA) in printing processes to 3% IPA.
- Hardback covers and endpapers are from FSC sources.
- Coatings for laminated covers are water based.
- Recycled cardboard boxes are used for packaging products.
- The shrink-wrap used for packaging products is biodegradable.
- Where possible packaging materials are re-used to package own goods.

**Further resource efficiency projects and initiatives**

- 98% of waste is recycled including; aluminium plates, paper, cardboard, plastic, metal and wood. Only 2% now goes to landfill and there is no longer any need to use a compactor.
- Scrap cloth and foil from case making is given to a local scrap store and is reused by school children.
- Recycle bins are located throughout the factory and offices including bins for waste batteries and printer cartridges.
- Where packaging materials cannot be recycled, negotiations have been made with the supplier to either, eliminate the material, or source an alternative recyclable material.
- Machinery which use compressed air have automatic shut off valves so the air is not left on when the machinery is not in use.
- Lighting in the toilets and corridors, and in some offices, is fitted with motion sensors and will only turn on when presence is detected.
- Timers fitted to non-production equipment e.g. vending machines, to automatically turn the equipment off when the factory is closed.
- Save a Flush bags installed in every toilet saving 0.3cm<sup>3</sup> of water per day.
- Forklift trucks now run on LPG and not diesel.
- An electric tug is used to transport goods to and from warehouse.
- Deliveries are batched together where possible to reduce number of journeys taken.

**Comments from TJ International:**

At TJ International we value the fact that we live and work in an area of outstanding natural beauty and care about the impact our processes have on the area, our staff and our neighbours. Our green policies are part of our core business activities and we could not make the achievements we have without the involvement and dedication of all our employees. We are wholly committed to reducing our impact on the environment, and are always seeking to improve working practices in a sustainable way.

**Catriona Lawson, Environmental Coordinator**

**Business Support received**

**Carbon Trust** – A not-for-profit company with the mission to accelerate the move to a low carbon economy.

T: 0800 085 2005

W: <http://www.carbontrust.co.uk/cut-carbon-reduce-costs>

**Envision** – A South West environmental support programme which helped businesses to save money and develop new green markets.

**Please note: this programme has now closed.**

W: <http://envisionsw.org.uk/index.php>

**Groundwork** – Help people and organisations make changes to create better neighbourhoods, to build skills and job prospects, and to live and work in a greener way.

T: 01752 217721

W: <http://www.groundwork.org.uk/>

**Sustainability Awards**

**2003 Cornwall Sustainability Awards** - Overall Inaugural Winner and Best Large Business

**2004 PrintWeek Magazine** - UK Environmental Printer of the Year

**2004 Green Apple Award**

**2004 National Training Award** - Highly Commended as a class-leader in environmental best practice

**2005 Printing World Magazine** - UK Environmental Printer of the Year

**2006 Severnside** - Best Environmental Management Solution/Best Sustainable Waste Solution/Best Recycling Training & Information Campaign

**2008 British Book Design & Production Awards** - Environmental Award

**2009 Cornwall Sustainability Awards** – Highly Commended for Waste Minimisation

**2010 Cornwall Sustainability Awards** - Continuous Commitment to Sustainability in Cornwall

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