

SENSE AND SUSTAINABILITY

SUSTAINABLE PRINTING MAKES GOOD BUSINESS SENSE, ARGUES HAGOP TCHAMKERTENIAN, OUTLINING SOME OF THE ENVIRONMENTAL INITIATIVES BEING UNDERTAKEN BY PRINTING COMPANIES TO HELP LESSEN THE INDUSTRY'S ENVIRONMENTAL FOOTPRINT – AS WELL AS IMPROVE THEIR BOTTOM LINE.

Printing business operators constantly deal with issues ranging from government imposed regulations to domestic and foreign competition, technological change and shifting consumer purchasing patterns. One area growing in importance is environmental management.

While the major raw material used by printers—paper—often comes from well-managed forest plantations and paper itself is both a renewable and sustainable resource, the industry needs to acknowledge that its activities do impact on the environment and, as a result, it has a social responsibility to help minimise or eliminate any adverse effects.

For many years, *Printing Industries* has been a supporter of sound environmental practices and an advocate of sustainable development, environmental management, resource and waste management, and recycling. A number of guiding principles have emerged that shape *Printing Industries'* approach to the environment. These include:

- Encouraging the industry to adopt sustainable practices as a key element in ensuring the long-term prosperity of the industry.
- Acknowledging that industry activities have both positive and negative effects on the environment. The adverse effects need to be minimised and if possible eliminated.
- Continuous improvement in environmental performance should be a standard goal for printing companies.
- Processes resulting in improvements in environmental performance should be viewed as a benefit and not as a cost.
- Being a 'Green Printer' can help improve the bottom line through savings in waste disposal costs and raw materials, energy consumption, insurance (address worker safety concerns), and improved company image.
- The essential raw material of the industry—paper—is a renewable/sustainable resource and this gives an important incentive to the other parts of the industry value chain to also engage in sustainable activities.

GOING BEYOND THE LAW

The era of waiting for governments and authorities to legislate as a means of ensuring improvements in environmental outcomes has long passed. It is in the commercial interests of industry to become proactive in environmental matters and convince

the government that it can manage environmental issues and produce ongoing improvements in environmental performance.

A proactive approach not only helps avoid government intervention and the imposition of regulations, but also gives businesses operating in the industry an opportunity to set the environmental agenda and start realising benefits to the bottom line. The establishment by *Printing Industries* and other key industry stakeholders of Paper Round, a product stewardship initiative to manage office papers, is an example of this philosophy of environmental proactiveness by industry.

When governments and environmental authorities determine that an industry has been slow to respond to identified environmental issues or is not showing any interest then they have at their disposal various policy instruments that they can implement via legislation and regulations to rectify the perceived problem.

CUT BACK ON THE CARBON

For example, policy responses to climate change could take the form of introducing a carbon emission trading scheme or carbon taxes and levies.

Under a carbon emissions trading scheme, the Australian government may determine how much emission of carbon dioxide it is prepared to allow on an annual basis. It then issues companies in the relevant industries and sectors with emission permits that equal the predefined target. Companies operating in different sectors can then trade the permits.

Printing companies who are able to cut back their carbon dioxide emissions or find out they have a surplus of

permits can trade those permits for payments from other printing companies or companies in other industries or sectors that require more permits to support their production. Initially, the permits are likely to be traded domestically but eventually, since environmental issues such as greenhouse gasses have global impacts, such permits are also likely to be traded internationally.

A carbon tax or a levy on the other hand involves the government imposing a tax or a levy on the emission of carbon dioxide. Advocates of carbon taxes and levies point out that they can be used to shift the balance of taxation away from taxing 'goods' to taxing 'bads'.

In general, labour, income, capital and savings are deemed to be 'goods' which make the economy productive, while environmental degradation is a 'bad' that reduces overall economic welfare. A shift in the burden of taxation away from labour, income, capital and savings towards pollution would thus provide both economic and environmental gains.

Both economic instruments, by raising the price of carbon-intensive goods and services, create a market incentive for both producers as well as consumers to reduce the production and consumption of goods and services that are carbon intensive.

AN EXAMPLE TO US ALL

In a recently published document by the NSW Government's Department of Environment and Conservation entitled *Environmental Action for the Printing Industry*, a number of case studies demonstrate the positive flow-on effects to the bottom line from initiatives to improve environmental performance.

A prominent environmentally-friendly printing company reports the following benefits from the implementation of an Environmental Management System:

- Reduction of alcohol use by 66 percent.
- Waste sent to landfill reduced by over 90 percent.
- Water consumption reduced by almost 83 percent.



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- Switch to soy-based inks resulted in 30 percent in reduction in traditional ink consumption.
- Paper and other raw materials used in setting up and running print jobs reduced by 50 percent.
- A 95 percent reduction in overall hazardous waste disposal.

In another example, a large web printing company, after re-evaluating its recycling scheme, was able to reduce its waste bill by 20 percent and add four percent to its bottom line. A screen printing company installed smart meters to monitor its electricity use. With a capital outlay of \$8,500 the company has now managed to reduce its electricity costs by \$500 per month, which means the return on investment will be in about 18 months.

After investing in waterless and computer-to-plate technology, a small commercial printing company realised the following benefits:

- Saving up to 20,000 litres of water per shift per year on a medium press.
- Saving 1–2 tonnes of volatile organic compounds (VOC's) from being released into the atmosphere per annum.
- Reducing paper waste by 40 percent.
- Reducing make-ready time.
- Eliminating costs of film and processing chemicals including disposal costs.

The company also decided to become carbon neutral by planting trees to offset the carbon output associated with its printing operations.

An Adelaide commercial printing company has implemented changes to become alcohol-free and has installed systems that reduce both water and energy consumption. The company uses vegetable-based inks and the vast majority of plates are produced digitally helping eliminate film and related chemicals. The company also recycles its waste and purchases both recycled paper and paper originating from sustainable forests.

The company has received Forest Stewardship Council (FSC) accreditation and has also gained simultaneous accreditation of both ISO 14001 (environment) and ISO 9001 (quality). It has also signed up voluntarily to the Federal Government's Greenhouse Challenge program, which aims to reduce greenhouse gas emissions, and has started producing audited environmental reports of its activities.



WE ARE NOT ALONE

Australian printing companies are not alone when it comes to the implementation of environmental improvement processes or the pursuit of environmental sustainable policies and strategies.

Currently about 181 printing facilities in the United States have earned FSC certification; a year ago, that number was only 80.

The FSC is an international organisation which administers a program for certifying that paper used in printed products originates from sustainable, legal and verified logging sources thus avoiding harvesting wood from areas that would have negative environmental effects or destroy slow-to-revive 'old growth' forests. FSC certified products pass through a complete 'chain of custody' from an FSC-certified forest to an FSC-certified paper manufacturer, merchant and printer.

Typical overseas environmental initiatives implemented by printing companies include investment in new technology such as computer-to-plate, the introduction of environmentally-friendly printing processes such as waterless printing, and reduction or elimination of hazardous chemicals. They cite improving air quality by eliminating VOC emissions, recycling of paper and toner/ink cartridges, conversion to the use of wind energy, and attainment of ISO 9000 and ISO 14001 certification.

The overseas-based printing companies cited above all report commercial benefits eventuating from their investments in environmental initiatives and programs.

CLEANING UP THE BOTTOM LINE

There is mounting evidence in the form of reports, case studies and testimonials that show the positive link that exists between the adoption and implementation of environmentally sound production processes and improvements to a company's bottom line.

As more and more printing companies in both Australia and overseas become environmentally responsible and thereby reduce their environmental footprint, they are appreciating that environmental initiatives are helping to deliver leaner and more efficient manufacturing processes, which result in lower business costs, improved productivity and ultimately higher profitability.

Environmental leadership appeals not only to large corporations who have adopted strict environmental policies and are increasingly selecting suppliers on the basis of environmental performance and reputation, but also to governments at all levels and the general community.

And given the tendency of today's business environment to operate more and more within a global economic framework, a printing company with a good environmental reputation is placed in a competitive advantage vis-à-vis its competitors operating in domestic and international markets. ●

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LOOK HOW FAR WE'VE COME

The printing industry has been able to reduce the impact of its activities on the environment considerably over the past couple of decades through a combination of factors including:

- the launch of new technological platforms like computer-to-plate and digital technology
- the introduction of modern, energy-efficient printing presses
- environmentally-friendly paper and paper sourced from sustainable forests
- increased recycling of printing consumables
- introduction of environmentally-friendly inks
- reduced water consumption
- reduced green house gas emissions