AN INTRODUCTION TO

SUSTAINABILITY IN PURCHASING

Updated: September 2008

PURCHASING AND SUSTAINABILITY

INTRODUCTION

Most people are aware of global environmental problems: subjects such as acid rain, climate change and species extinction are often in the media. What is less well understood is the link between these global problems and everyday actions. Many people are unaware of how they can both contribute to environmental problems and help to solve them.

Purchasing goods and services, whether on a small or large scale, has a contributory effect upon pollution, depletion of natural resources and habitat destruction, leading to problems like global warming. For example, buying wooden furniture in Staffordshire can support careless logging of forests in South America. In turn, careless logging can cause soil erosion, leading to loss of nutrients and extinction of plant and animal species. It also threatens the existence of indigenous forest people and communities dependent on the forest. This is not to say you shouldn't buy your new desk, but it is essential that a link is made between purchasing and wider environmental and social issues. This Guide aims to make that link by providing information on environmental issues associated with purchasing decisions, guidelines for purchasing goods with reduced environmental impact and help with choosing specific products.

All of us have a role to play in reducing the environmental impact of the materials and services that we purchase and use. Staffordshire University spends approximately £10 million on these each year and every purchase made can contribute to sustainability, no matter in how small a way.

Through considering the impact of purchasing this Guide will help you to make a difference to the environmental effects of the University's purchasing.

BACKGROUND

Some years ago, Staffordshire University gave support to a set of key principles governing environmental purchasing within the Public Sector. This initiative, Local Agenda 21, contains details of commitment to environmental good practice. All purchasing decisions, from the products themselves, the ways in which they are manufactured, to the use that is made of them, have significant environmental impacts. It is clearly important that when purchasing decisions are being made, due consideration is taken of environmental impact.

As a large purchaser of goods and services, the University has a key role to play in promoting environmental sustainability through its purchasing activities, both through how and what it purchases and through its ability to encourage and influence its suppliers regarding environmental issues. The disposal of products is an equally important factor in determining a Purchasing Strategy, in terms of recycling and pollution caused by disposal.

The key principles of Local Agenda 21 include:-

- Staffordshire University will promote and implement sustainable purchasing which supports the environment.
- Staffordshire University will identify, through its centrally negotiated arrangements, products that are environmentally friendly where such products are suitable in terms of quality and represent value for money.
- End users, when specifying products and services, must take account of the environmental impact of products and services they propose to purchase.

Value for money must be viewed in its widest sense, taking account of the initial cost and the cost of maintenance, including resources consumed in carrying out that maintenance together with the cost of disposal. In this way a balanced judgement may be made between cost and environmental impact.

AIMS AND OBJECTIVES OF THIS GUIDE

Sustainability in purchasing need not necessarily cost more and there is now a much more comprehensive range of environmentally friendly products available to purchase. "Green Products" are not necessarily more expensive; it may be that the cheapest product is more expensive long term once running costs, administration and life of the product are taken into consideration.

An important part of sustainable purchasing is the consideration of whole-life costs when making the purchasing decision and this requires consideration of all costs in the procurement, use and disposal of products and not just their initial acquisition cost. As well as the purchase price, other longer term factors to consider are consumables, service and maintenance costs and the final cost of disposal and replacement.

This guide is not intended to replace Financial Standing Orders and Financial Regulations but is intended to support them. It is important to note that environmental considerations form only one part of the purchasing process. This guide aims to give advice on how purchasing decisions can be utilised to support the University's environmental purchasing policies, whilst complying with the requirements of Financial Standing Orders.

All end users involved in procurement should ensure that the relevant issues raised in this guide are brought to the attention of existing and potential suppliers of goods and services. It is important that the University Approved Suppliers have a good record on environmental issues.

It is not practical to produce a definitive list of products which are 'environmentally friendly'. However, this guide should assist in evaluating pros and cons of the products and services which are purchased. The guide provides a framework to help in considering environmental factors prior to purchase. The guidance given is, of necessity, of a general nature, and further detailed guidance is available from Staffordshire University Purchasing Officer.

ENVIRONMENTAL PURCHASING POLICY

The aim of this Environmental Purchasing Policy is to prompt staff involved in the procurement of goods and services to use environmental responsibility as a factor in their purchasing decisions. In particular, to:

- Consider goods and services which can be manufactured, used and disposed of in an environmentally responsible way.
- Give preference, where items are of a similar cost, to those that are manufactured with a high recycled content.
- Specify items that can be recycled or reused.
- Consider the energy/usage/cost of operating equipment prior to purchase.
- Favour suppliers that are committed to environmental improvement.
- Consider 'whole life' costs and impacts when assessing equipment for purchase.
    - Packaging – disposal costs
    - Delivery – mode of transport, fuels, distance
    - Installation costs
    - Running costs – energy, other consumables, staff training needs
    - Maintenance costs – staff time, bought in expertise
    - Replacement costs – life-time of product, key parts
    - Health and Safety issues – handling, exposure, lifting
    - Disposal costs – take back by producer, environmental impact, legislation (e.g. chemicals, fridges, IT and other electronic goods)

Specifically, the University Purchasing Officer will:

- Circulate agreements that offer environmentally friendly alternatives.
- Establish environmental credentials of the suppliers bidding for University contracts.
- Supply best advice on environmental issues relating to purchasing.

It is recognised that there are many examples throughout Staffordshire University of sound environmental practices and that much has been achieved in recent years. It is anticipated that this Environmental Purchasing guide will be used, even where only occasional purchases are made, to support these achievements.

STANDARD QUESTIONS FOR ALL PROPOSED PURCHASES

Whatever products or services you wish to purchase there are certain standard questions to consider:-

1. **Do you need this product or service in the first place or could you use less?**
   The best environmental option is to purchase less and use less. By reducing the number of orders raised, we are able to work with our suppliers to improve prices as well as reducing the impact on the environment. Before purchasing a product or service, ask whether you could mend or repair existing equipment or use it more efficiently. For instance, many items of furniture can be repaired or you may not need as many copies of a document as you first think. Obsolete stock items often end up in landfill sites. Always order the minimum amount which it is practical to order.

2. **Could you use a lower specification for the same purpose?**
   Some products can be made from a lower specification material which uses less resources without compromising its ability to do the required job. For instance, lower grade or recycled paper may be sufficient for use internally.

3. **Is the product manufactured using reused, recycled or renewable raw materials?**
   Purchasing a product which is manufactured using reused or recycled raw materials encourages the reuse or recycling of waste and optimises the use of resources. A product made of a renewable resource e.g. wood or a natural fibre such as cotton is preferable to one made of a non-renewable resource e.g. oil (plastic) and metal. Many office products, such as paper and toner cartridges, are now available with a recycled content and many others are made of renewable resources.

4. **Which product is cheaper over its whole life, taking into account not only the capital but also running and disposal costs?**
   Look for the lowest whole life cost, not just the lowest capital cost. A relatively expensive product, such as energy efficient light bulbs, may last longer and create less waste leading to overall savings.

5. **Does the product contain any chemicals requiring Safety Data Sheets?**
   If the product, such as a cleaning chemical, is potentially harmful it will be supplied with a COSHH Safety Data Sheet detailing how to handle it. Try to replace these products with alternatives that do not require such precautions.

6. **Can the product be reused or recycled once it is obsolete?**
   Try to purchase products that can be reused or recycled at the end of their useful life. For instance, thermal roll fax paper cannot be recycled and purchasing this type of fax machine rather than plain paper models means that when faxes are disposed of, they can only be thrown away and not recycled.

7. **Will the product require special disposal arrangements?**
   Some potentially hazardous products such as paints, solvents and oils can cause particular damage when disposed of. Try to find an alternative that is safer and cheaper to dispose of; for instance, water based rather than solvent based products.

PRODUCT GUIDANCE

The following guidance against each specific product or range of products is designed to aid consideration of environmental factors as part of the purchasing process. By following these quick suggestions staff can be sure that they are adequately considering sustainable purchasing issues and that their eventual actions, if guided by this, represent best practice.

More detailed information on some of the categories and suppliers follows this section.

PAPER AND STATIONERY

Staffordshire University is a large consumer of paper and stationery and it is important to try and reduce the environmental impact of this activity. Some ways to achieve this could be:

- Use e-mail where possible in preference to sending internal memos.
- Put documents on the website to reduce the need for circulating paper copies.
- Photocopy documents using both sides of the paper wherever possible.
- Internal mailers and reused envelopes could be used for sending documents internally (except perhaps for confidential documents). This reduces landfill and is cost effective – the use of 100 internal mailers can save between £50 and £100 compared with the use of virgin manilla envelopes.
- Use solvent free correction fluid.
- Avoid the need for batteries that contain contaminants, which will be released when disposed of. Specify solar power calculators and where possible use rechargeable batteries.

WOOD AND FURNITURE

Timber from tropical rain forests is being destroyed at around the rate of 20 million hectares each year. Tropical hardwood is typically used in furniture, insulation, packaging, fittings and doors.

- The Forestry Stewardship Council (FSC) oversees the certification and labelling of products that have come from sustainably managed forests. There are now more than 8 million hectares of FSC certified forests throughout the world. It is preferable to buy products that have been FSC certified; look out for the FSC tick mark on products.
- Purchase products with joinery and associated fittings manufactured from wood produced from sustainably managed forests or with recycled tops made from MDF or chipboard.
- When considering the purchase of wood based or other furniture, look at whether existing furniture can be repaired or used elsewhere in the University. New furniture that is purchased should be durable and be able to be repaired and upgraded easily.
- Check that the furniture comes with comprehensive maintenance and repair instructions.
- Check with the supplier/manufacturer of furniture to see if any plastic fittings on furniture are coded to facilitate recycling. Preferably any plastic and metal fittings should be made from post consumer waste.
- Ensure any furniture foams do not contain CFCs or HCFCs.

ENERGY

- If purchasing appliances rated under the EU's environmental labelling scheme, check the energy efficiency of the model concerned. If an appliance is not rated under this scheme ask the supplier for details of the normal power consumption. This should help to determine the overall cost of buying and using an appliance.
- Ensure that office machinery which is purchased has energy saving devices incorporated such as "sleep facilities" on photocopiers, PCs and printers.
- Batteries contain Cadmium, Lead and Mercury and usually end up in landfill sites after use. Where possible mains electricity should be used in preference to batteries, or rechargeable batteries should be purchased as these may be used up to 500 times before disposal.
- Switch off when not in use! In the UK approximately 20% of total office energy is due to office equipment.
- Purchase low energy light bulbs and use more efficient fluorescent tubes where possible. Low energy bulbs cost less in the long term; on average low energy bulbs use 20% of the energy and last up to ten times longer than normal bulbs.

OFFICE EQUIPMENT

These are some key points to consider when specifying office equipment and consumables:-

MULTI – FUNCTION DEVICES:-

- Must be able to use recycled paper
- Should provide a duplex function
- Should have a sleep stand by mode

FAX MACHINES:-

- Must be able to use recycled paper
- Should have low stand by power consumption or sleep stand by mode
- Should use plain paper

PC's

- Specify computer monitors which power down after a period of inactivity.

I.T. CONSUMABLES

- Seek consumables which can be taken back and recycled by the supplier
- Avoid chemically impregnated sprays and tissues for cleaning VDU's

PRINTERS:-

- Must be able to use recycled paper
- Should provide a duplex function

PACKAGING

The reduction of packaging used on products can play a major part in avoiding waste and reducing landfill.

- Where possible try to avoid the purchase of over wrapped goods.
- Check if the supplier will take back any substantial packaging for re-use.
- Ask the supplier about the level of post consumer waste which is used in the makeup of the packaging.
- Check with the supplier to ensure that packaging used on the product is recyclable.

DISPOSAL AND RECYCLING

Landfill sites are the most common forms of waste disposal in the UK but the availability of sites is reducing and the cost of landfill is increasing. Some of the products that are placed in landfill sites may take hundreds of years to break down, such as plastics.

- Before purchasing, it is recommended that there is an evaluation of the potential for recycling the product in question, particularly comparing it against similar products on the market.
- When purchasing, look for goods which can be easily repaired and upgraded with guaranteed stocks of replaceable parts.
- Buy IT consumables which can be taken back by the supplier for re-use/recycling
- Use only biodegradable products
- Always use recycled paper, wherever possible.

GENERAL STATIONERY

Our contract supplier for general stationery is:

LYRECO UK

The Lyreco catalogue is distributed throughout the University and all environmentally friendly products are clearly identified.

Lyreco continually explore ways of reducing packaging within their warehouse and distribution operations. Disposal of waste materials to landfill is being reduced to its lowest possible level by diverting materials to recycling and recovery.

Lyreco recycle cardboard and paper, with office paper recycling ongoing at all major administrative centres.

ENVELOPES

Over the last twelve months, the University has purchased some 700,000 envelopes.

The paper and envelopes in the Lyreco range have been selected to include lines with the maximum use of recycled materials. Reusing materials reduces disposal in landfill as well as reducing water and energy consumption in manufacture.

Suggestions

- Manilla envelopes should be used when possible.
- If a better quality or prestigious envelope is required, recycled white envelopes would be a preferable purchase.
- Reusing envelopes for internal use is a good way to spread resources.
- Window envelopes cannot be recycled, so use them sparingly. Try to use recycled envelopes and reuse window envelopes whenever possible.

ADHESIVES

The University purchases a significant amount of adhesives, particularly adhesive tapes. Last year, nearly 2000 different types and sizes of rolls were used, equating to nearly 70 miles of tape; sufficient to spread from Stoke to Manchester and Stafford to Birmingham!

General purpose tape should preferably use water soluble adhesive (derived from vegetable gum and therefore non-toxic) and where possible be paper or cellulose based to create a biodegradable product.

Spray adhesives should be avoided if possible as much of the product is lost into the atmosphere. Most adhesives contain some solvents, although many are now water based and the solvent content has been reduced. Glue sticks are the most eco-friendly as they are completely non-toxic.

Suggestions

- Minimise the use of tapes and adhesives
- Use narrow adhesive tape, whenever possible

CORRECTION FLUID

With the advent of PC's, use of correction fluid should logically have decreased. However, over the last twelve months some 10 litres of correction fluid have been ordered, sufficient to decorate a couple of decent sized dining rooms!

Along similar lines, the amount of correction rolls ordered was sufficient to create a line one mile in length.

Suggestions

- Cut down on Tipp-Ex usage.
- Use solvent free fluids when possible as these have no need for thinners and do not emit toxic fumes.
- Consider using correction pens, as these are less likely to dry out and will last substantially longer than the bottles.

POST-IT NOTES

The University uses more than 300,000 post-it notes every year (over 200, or 2 pads for each member of staff) and less than half of these are made of recycled material. It is interesting to consider that post-its didn't exist 15 years ago and yet they are now deemed indispensable. Most post-its are not recyclable due to the adhesive used and therefore even recycled notes only have one life.

Suggestions

- Purchase post-its made of the lowest grade recycled waste as they cannot be recycled themselves.
- Reduce the amount of post-its used by substitution of scrap pads.
- Analyse whether post-its are being used for the right purpose.

FLIPCHARTS

Although the consumption of flipcharts is not great, the quantity of paper per pad is sizeable, especially considering that generally only one side of each sheet is used.

Suggestions

- Use whiteboards or OHPs whenever possible.
- Buy recycled pads when necessary.
- Write on both sides of the pads.

PENCILS

Pencils make a good alternative to pens for informal use. Although automatic pencils are not made from a renewable source, they can be used repeatedly and so save on waste.

Suggestions

- Replace pens with pencils where possible
- Use pencils made with timber from sustained forests, lightly painted or varnished if necessary.
- Use refillable pencils.
- Avoid disposable automatic pencils.

PAPER

The University's contractor for the supply of paper is:

LYRECO

Lyreco have been recognised for a number of environmental standards to reflect their commitment to invest in environmentally aware practices.

The majority of their products are taken from European paper mills using pulp from renewable sources (i.e. for every tree felled, two are planted).

Regular environmental audits of their suppliers are undertaken to consider paper, fillers and water used in all their products.

Lyreco are able to provide a next day delivery service, direct to a desk, copier or office.

Their recently introduced EP4 range is a recycled product, suitable for use in most printers and photocopiers. EP4 is manufactured from 100% Post Consumer Waste (PCW). That is, waste paper collected from banks, shops and offices. It is processed using an oxygen bleaching de-inking plant. This is considered to be a more environmentally responsible method of bleaching than chlorine or chlorine-dioxide bleaching.

The University currently uses around 20 million sheets of white A4 copier paper every year – this works out to roughly 10,000 sheets per member of staff – it is important to try to reduce the environmental impact of this activity:

- Photocopy documents using both sides of the paper wherever possible.
- Use email where possible to avoid sending memos or printed documents.
- Use paper recycling bins which are available from your Campus Manager, Stoke (4417) and Stafford (3208).

COMPUTER CONSUMABLES

The University's contract supplier for computer consumables is:

SUPPLIES TEAM

TONER CARTRIDGES

Throughout the University, many laser printer cartridges are used each year, with, sadly, many ending up in landfill sites. This is now recognised as a waste of a valuable resource as approximately 90% of the mass of a laser toner cartridge can be recycled by a refurbishing process.

There is little excuse for not considering the use of remanufactured toner cartridges provided they are from a reputable supplier that will guarantee quality and reliability. A properly remanufactured toner cartridge will perform at least as well as an OEM one. The two main concerns expressed with regard to using remanufactured cartridges are:-

- Damage printers: It is unlikely that even a poorly remanufactured toner cartridge would damage a printer, but should this happen, a reputable supplier will provide a "repair or replacement" guarantee against such damage.
- Invalidate printer warranties: This is not true and would probably be illegal.

REVIVA

Supplies Team offer the Reviva range of laser toner cartridges. The original cartridge is dissembled, quality checked, cleaned, refilled and re-assembled. All components are closely inspected and replaced if any signs of wear and tear are evident. The OPC drum (this generally fails before anything else) is replaced with a premium grade long-life drum such as the Fuji SX. It is not recoated as is the case with many remanufactured cartridges.

Reviva laser toner and ink jet cartridges are manufactured to the same high standard as the larger printer brands.

- Every cartridge is print tested prior to packing by specialist production engineers.
- Every cartridge carries a full service and product replacement guarantee.

Suggestions

- To make cartridges last longer, set the density adjustment on the printer to give a lighter print.
- When the toner starts to run out, fading and streaks may be seen on the page. Redistribute the toner by removing the cartridge from the machine and rocking it back and forth.
- Follow a regular cleaning and maintenance schedule for the printer – regularly replace the ozone filter.
- Ensure you recycle your toner cartridges; toner recycling bins are located at several points across the University. Please contact Information Services on Extension 3411.

LOCAL SUPPLY POLICY

Current EU procurement directives applicable to HE explicitly forbid the favouring of local suppliers – purchasing decisions must be based on criteria identified at the time of tendering in open competition that is freely available to all potential suppliers.

If all other factors are equal (price, quality, service, etc) a local supplier may be chosen over a remote supplier as the reduced level of transport represents a positive environmental benefit.

As with all purchases, however, decisions must be made in accordance with the University's Contract Standing Orders and relevant EU procurement directives. Advice on these is available from the Purchasing Officer.

SPECIFICATIONS

Careful consideration needs to be given to which products are to be specified in tender documents and specifications. However, legislation requires that the University does not indulge in anti-competitive or restrictive practices. To exclude certain sources of supply may be deemed anti-competitive or restrictive. Staffordshire University Purchasing Officer is able to assist in specifying positive requirements that are:

- Appropriate and relevant to the service required from the products
- A legitimate client interest
- Specified in the tender documents if going to tender
- Not anti-competitive
- Not non-commercial

For example, to specify that hard wood veneers should not come from tropical rain forests may be restrictive. To specify that hard wood veneers should be supplied from a managed sustainable source is likely to be considered reasonable. Equally, whilst the University cannot require a supplier to use environmental criteria in the way they run their business, it can include relevant environmental criteria in its tender documentation. All high value tenders issued by the University Purchasing Officer ask a range of environmental and social questions of tenderers and these form part of the tender evaluation process.

What is an environmentally friendly product?

An environmentally friendly product can be described as being:

- Fit for the purpose and providing value for money
- Energy efficient and resource efficient
- Made with minimum use of virgin materials
- Made with maximum use of post consumer materials
- Non (or reduced) polluting
- Durable, easily upgraded, and repairable
- Re-usable and recyclable

CLAIMS MADE BY SUPPLIERS

As there is no such thing as a universally accepted definition of the term "environmentally friendly", many claims made by less scrupulous suppliers may prove to be untrue. Purchasers should be wary of unsubstantiated claims and environmental labels which have no formal recognition.

Typical statements include:

"Environmentally friendly" – meaningless if unexplained.

"comes from managed forests" – virtually all forests used for paper making are managed, but some are managed in ways that are strongly criticised by environmentalists.

"kinder to wildlife" – meaningless if unexplained.

Although it is extremely difficult to undertake a "cradle to grave" analysis of many products in order to verify their green credentials, it is still possible to work together with suppliers to inform them of Staffordshire University's requirements and to improve their environmental performance. By adopting a more open, co-operative approach, both the University and the supplier can improve their environmental performance, to mutual benefit.

End users should attempt to make the best decisions with the information at their disposal. It is, therefore, important to questions assumptions and claims about the environmental properties of products and this can only be done through extensive research and contact with manufacturers and suppliers.

Check "green claims" on products carefully

Green claims should be:

- Clear and accurate
- Relevant
- Written in plain language
- Be capable of being proved

Green claims should not:

- Be vague or ambiguous
- Be misleading
- Claim environmental benefits that are unlikely to be achieved in practice

The DETR Green Claims Code provides guidance on evaluating green claims

CONCLUSION

Hopefully, this guide has given a few ideas and suggestions to help you in making environmentally-based purchasing decisions. It is by considering the environmental effects of these decisions that you can make a difference.

REMEMBER

Reduction: We can all use less of everything, e.g. paper, electricity, water, plastic, etc. All it requires is a little effort to establish an environmental approach.

Re-Use: If an article has been used, try to think of ways it can be used again, e.g. envelopes, A4 paper (scrap pads), unwanted items could be used elsewhere.

Recovery: There are already recycling schemes in place for paper, cardboard, toner cartridges and fluorescent tubes – please use them, or contact Facilities Management for further information.

TOGETHER, we can make a difference.