

Resource Efficiency Issues

Energy

Energy: energy is essential to virtually every aspect of business activities. In order to meet our energy needs we use both renewable and non-renewable sources of energy.

Electricity and gas are used in offices for:

- Lighting
- Heating
- Cooling
- Air conditioning
- Operating equipment such as:
 - ⦿ computers, printers, fax machines, phones, photocopiers etc

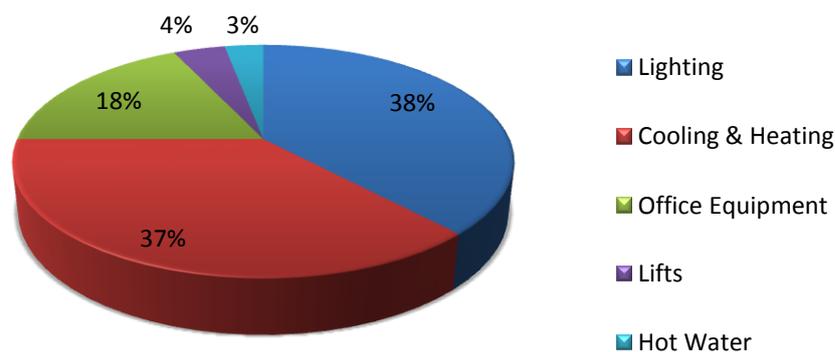


Energy is also essential for:

- Transport
- Products and services we use that require energy to be created and supplied

If businesses can save energy or use more sustainable forms of energy everyone will benefit

Office Building Energy Use



Source: December 2007, EcoBiz Queensland

Renewable and non-renewable energy

- Renewable energy is naturally replenished, sustainable energy that comes from the natural environment. (eg wind and sunlight)
- Non-renewable energy cannot be replenished. Once it is used it is gone. (eg: coal, oil, gas)
- Most electricity in Australia comes from coal fired power stations that release high levels of carbon dioxide and other greenhouse gases and pollutants into the environment.

Water

The three key issues associated with water are:

- Scarcity
- Water quality
- Waste and disposal

Scarcity

There is increasing demand for water and a decline in water availability. A dripping tap can waste up to 31,000 litres each year – more than half the volume of a backyard swimming pool.

Increasing Demand

Increasing demand is due to a number of factors

- Population growth
- Urbanisation
- Industrial growth
- Agricultural development



Water quality

Water quality is affected by a number of factors, such as:

- Runoff from detergents and fertilisers
- Sewage
- Toxic emissions from industry
- Groundwater contamination from landfill
- Litter washed into drains

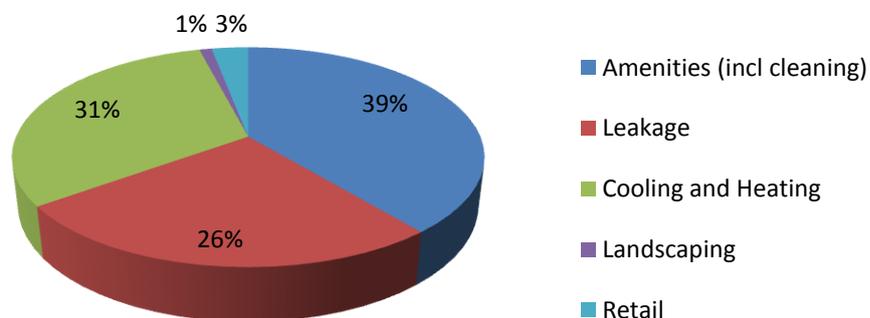
Poor water quality creates problems for humans and the environment. This can include:

- Contaminated drinking water causing health problems for humans
- Contaminated waterways result in oxygen levels being altered. This results in the growth of plant life such as blue-green algae which choke waterways, killing other plants, fish and wildlife

Waste and Disposal

Only 25% of drinkable water in Australian cities is used for drinking and watering gardens. The rest is discharged into the rivers and oceans via the sewerage system and stormwater drains.

Office Building - Water Use



Source: December 2007, EcoBiz Queensland

Waste – reduce, reuse and recycle

Every business generates rubbish. Some goes into the bin, some into recycling. What goes into your bin ends up in the rubbish tip as landfill.

Rubbish discarded from a business can include:

- Paper
- Packaging
- Plastic wrap
- Food scraps
- Drink containers
- Pens
- Paper towels
- Ink and toner cartridges
- Damaged or broken office equipment



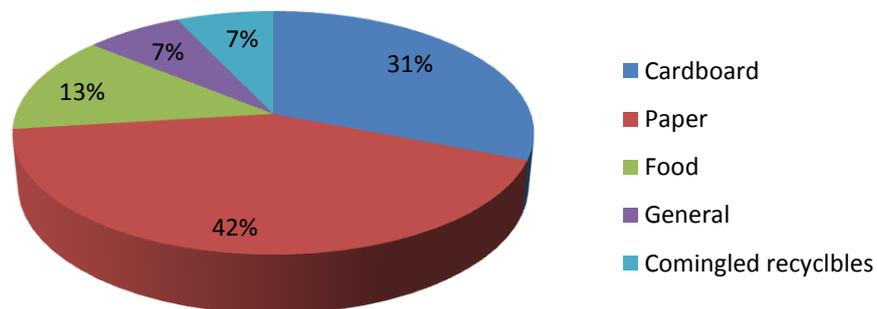
Landfill creates environmental problems including:

- Decomposing rubbish produces greenhouse gases such as CO₂
- The emissions from these gases create air pollution and bad odours, which interfere with the quality of human life
- Chemicals released from the decomposing waste can leach into the soil and water

Landfill takes up a large area of land, which could be used for better purposes such as:

- Housing
- Farming
- Community space

Office - Waste Composition



Source: December 2007, EcoBiz Queensland