



- ✓ Change high energy lights to low energy lights in your meat display areas where possible. Energy efficient lighting can provide a suitable colour, intensity and temperature within your meat displays. These lights are able to produce a warm colour or slightly red light to enhance the colour of the meat, and not generate too much heat.
- ✓ Increase the amount of natural light into your business through installing skylights and windows.

## Hot Water

### Low cost (\$0 - \$500) actions

- ✓ Turn off electric hot water systems on weekends and holidays when the business is closed.
- ✓ Most hot water systems are set at too high a temperature. Set the temperature at a maximum of 60°C as this is adequate for most uses.
- ✓ Inspect and fix leaks.
- ✓ Insulate pipes and taps on hot water systems with 10mm thickness insulation.
- ✓ Install a heat trap within the pipes to prevent heat loss from the pipework.

- ✓ Avoid reheating water in high cost periods by installing a timer or switching to off peak.
- ✓ Install flow regulators and AAA- rated plumbing devices or retrofit your taps to reduce hot water use.

### Longer term actions

- ✓ Upgrade your electric hot water system with a solar hot water system to save money on energy use.

## Meat processing and cooking

### Low cost (\$0 - \$500) actions

- ✓ Turn off your exhaust fan when the preparation area is empty.
- ✓ Don't leave your equipment on standby when your business is not on operation.
- ✓ Keep all equipment clean and well maintained.

### Longer term actions

- ✓ Replace old equipment with more energy efficient options.
- ✓ When upgrading or buying new equipment such as mincers and bandsaws, make sure you buy the right size. Oversized equipment often uses more electricity.

## Involve your staff

- ✓ Involve your staff and let them know how you are making changes to save energy and what they can do.
- ✓ Train your staff to save energy and set goals to reduce energy use.
- ✓ Use light, breathable fabrics for staff uniforms. This will keep your staff cooler.

# Save energy and money in your butcher shop

*“The use of vents has meant we don't need to use our air-conditioning as much, which has definitely saved us money. The newer fluorescent lighting we installed has reduced our bills too and provided better lighting for our customers and staff ”*

Small suburban butcher



## You too can save!

Contact us for a free energy assessment on 9319 0288.

## Did you know?

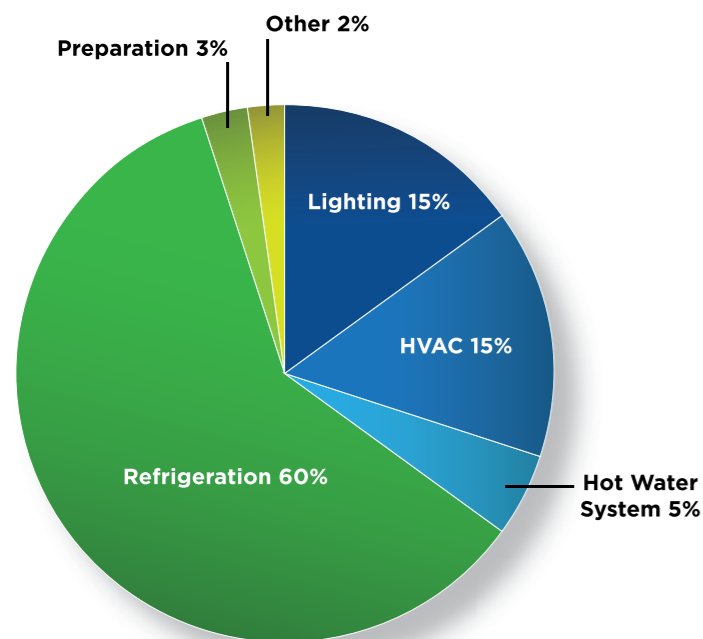
3% more power is used for every one degree colder for your fridges and freezers.

## Refrigeration

### Low cost (\$0 - \$500) actions

- ✓ Place notices up to remind staff and customers to close the freezer and refrigerator doors.
- ✓ Make sure fridges and freezers are at least 10-15 cm from the wall.
- ✓ Check the temperature settings. Freezers are recommended to work at -18 degrees and fridges 0-4 degrees.

- ✓ Try to locate fridges and freezers in the coolest place and away from heat sources such as food heating/cooking equipment and direct sunlight.
- ✓ Check that temperature sensors in cool rooms are in a suitable, accessible location and that they do work (check with another thermometer).
- ✓ Do not stack items close to fridges, freezers or coolrooms as they might obstruct air flow.
- ✓ Move stock from half empty fridges, freezers and cool rooms and then turn off unused units.



Butcher's

- ✓ Fridges that require defrosting should be done 2 to 3 times per year.
- ✓ Drink fridges that have no perishable products can be turned off with a timer before going home.
- ✓ Cover glass topped freezers and fridges with lids or insulated soft covers overnight or when not in use. Use Velcro strips to secure soft covers on upright display freezers and cases.
- ✓ Install a beeper to alert staff when doors are left open.
- ✓ Fit curtains to walk-in units or large open fridges to reduce cold-air losses.
- ✓ Freezer fans can have a system fitted that closes the fan down when the doors are opened.
- ✓ Visually inspect the seals often for cracks and signs of wear, particularly at the bottom of the door. Repair or replace the seals when necessary. (Close the door on a \$5 note. If you can easily pull the note out then you need to replace the seals).
- ✓ Ensure that condensers and evaporator coils are clean and free of dust.
- ✓ Check if any condensers need replacing.

### Longer term actions

- ✓ Check with your refrigeration specialist if your cool room has an EC fan (Electronically Commutated fans). If not, consider replacing it with EC fans to save up to 30% electricity.
- ✓ Buy new smaller (domestic) fridges and freezers with a higher energy star rating. View the website: [http://reg.energyrating.gov.au/comparator/product\\_types/](http://reg.energyrating.gov.au/comparator/product_types/).
- ✓ Consult a refrigeration specialist on energy efficiency ratings for larger commercial refrigeration systems.

### Did you know?

For a typical butcher, at least 50% of electricity costs are for freezers and refrigerated storage.

## Heating, ventilation and air conditioning (HVAC)

### Low cost (\$0 - \$500) actions

- ✓ Only use the air conditioning system when necessary.
- ✓ Keep temperature settings at 20 °C for heating in winter and 24 °C for cooling in summer. Moving the temperature 1°C lower in summer and 1°C higher in winter will increase your energy use by 10 per cent.
- ✓ Check that the staff know how to change the air conditioner controls to suit the conditions.
- ✓ Use the outdoor air economy cycles in centralised air conditioning systems.
- ✓ Close the windows and doors when the air conditioning is on.
- ✓ Remove any objects blocking the ventilation and air flow around the rooms.
- ✓ Insulate the air conditioner ducts and pipes so that it doesn't lose cool air.
- ✓ Open windows and doors and use ceiling fans to move the air around.

- ✓ Close back doors and doors between the counter area and other work spaces to contain cool air.
- ✓ Maintain the air conditioning system according to the manufacturer's instructions, and make sure that:
  - the system is free of dust
  - coils and filters are clean and replaced where required
  - ducts and pipes are checked for damage or leaks.

### Longer term actions

- ✓ When replacing the air conditioning units look for a more energy efficient option.
- ✓ Ensure any new air conditioning units are the right size for the space.
- ✓ Add external shading, such as eaves or awnings, on the northern side of the building and add tinting to windows that catch a lot of summer sun.
- ✓ Consider installing air curtains at the entrance to reduce cool air loss during summer and warm air loss during winter through doorways. Air curtains are also effective for the entrance to cold rooms where they help to prevent warm air entering the cold room and cold air escaping.

### Did you know?

Installing plastic strip curtains on your cool/freezer rooms can reduce the loss of cold air while the door is open.

- ✓ Consider putting plastic strips at the entrance to reduce cold air loss.



## Lighting

### Low cost (\$0 - \$500) actions

- ✓ Paint dark walls with lighter colours to improve natural light levels.
- ✓ Using labels and training, ensure that your staff knows where the light switches are located and how lights are controlled so that they can turn off the lights when they are not being used.
- ✓ Turn off the lights in display cases and fridges after hours.
- ✓ Clean windows, light fixtures and skylights regularly.
- ✓ Install timers or occupancy/motion sensors on the lights (ie lights turn on when someone walks into an area) in rooms that are not often used.
- ✓ Remove some of the lights in areas which are too brightly lit.

### Longer term actions

- ✓ Find out if multiple switches can be used to separately control lights instead of a single switch.
- ✓ Change old or high energy using fluorescent tubes and halogen downlights to low energy using lights such as Light-Emitting Diodes (LEDs).