

# Appliance

## Best Practices for Energy Efficiency

### Refrigerators and Freezers

#### Operations

- Keep doors closed and minimize the amount of time the door is open. If the unit is a food well or chest unit, close the lid.
- Set the appropriate temperature, don't over cool or freeze goods.
- Keep heat sources such as ovens and dishwashers away from unit. If mobile, keep out of direct sunlight.
- Allow circulation near unit. Keep material away from condenser coils and if movable, leave a few inches between the wall and unit.
- Keep coils clean. Hardware stores sell brushes to make this easier.
- Check door seals and door alignment regularly for any escaping cold air.
- Turn off door heaters. Heaters are built in to prevent frost and moisture buildup. In some areas, these may be required. If either frost or moisture forms around the doors after turning the door heating off, turn them back on.
- Inspect and set defrosting cycles. Most units have auto-defrost cycles, find the timer or clock that controls the frequency and set to the minimum amount needed to keep frost from building up. A good starting setting is 15 minutes, four times a day.
- Check refrigerant and keep refrigerant fully charged. Running a unit with too little refrigerant requires more energy and can wear out the compressor. Typically a sight glass or bubble window is mounted near the condenser for these checks.
- Keep the auto-closer on the door maintained and lubricate the door hinges.
- Reduce the amount of time the door is open, do not prop the door open minimize the number of trips into walk in units.

#### Hardware

- Replace door seals when they no longer provide an airtight seal and cold is escaping.
- Realign doors if seals are in good condition but no longer cover the doorway.
- Replace old units. If it was manufactured before 1993, it may be using significantly more energy than a new more energy efficient design. ENERGY STAR has a site to calculate energy use and savings for replacing old refrigerators.
- Install strip curtains and automatic door closers to walk-in units. These are low cost upgrades and often utilities have rebates for them.
- Shade the remote condensers on large refrigerators and freezers. These are typically installed on the roof and support a walk-in sized unit. Some shade paneling on the remote condenser will increase its efficiency.
- Insulate lines between the remote condenser and walk-in. Insulation on pipes is a cost effective way to reduce energy loss between the two.
- Install CFL or LED lights. Energy efficient lighting saves energy and money by itself, additionally they produce less waste heat that must be removed from the storage area at the cost of even more energy.
- Buy night curtains for display cases and open-case refrigerators. These are fairly inexpensive and work well to trap cold inside when the business is not open.
- Upgrade fan motors in walk-in units. Look specifically for Electrically Commutated (ECM) motors. Rebates are commonly available for this upgrade and should be done before failure of an existing fan.
- Install motion sensing switches in walk-ins. If the unit has a wall switch, install a motion activated switch to prevent the light being on when no one is inside.