ORESOME RESOURCES
Minerals and Energy Education

Energy Efficiency in Homes

How can homes be more energy efficient?

There are many ways to reduce the use of energy in homes. This results in decreases in the levels of greenhouse gases being produced and also lowers energy bills.

Efficient Warming

Wherever you feel cold air coming in around a window or door, you have a leak and warm air will escape through the same gap. Drafts are costly, can cause discomfort and energy is wasted. Sealing gaps and cracks with caulking and weather stripping is one of the most cost-effective steps you can take to keep the heat inside your home, reducing heat loss by 5-10%. In Queensland an extra layer of clothes can help in staying warm rather than using heating appliances excessively.

Efficient Cooling

In summer do not set the air conditioner any lower than 24 degrees. If it is set to 18 degrees on a hot day the room will not get that cold but the motor will work harder and consume more energy to try to cool the room. Always make sure the curtains, windows and doors are closed before the aircon is turned on. This will help to keep the heat out.

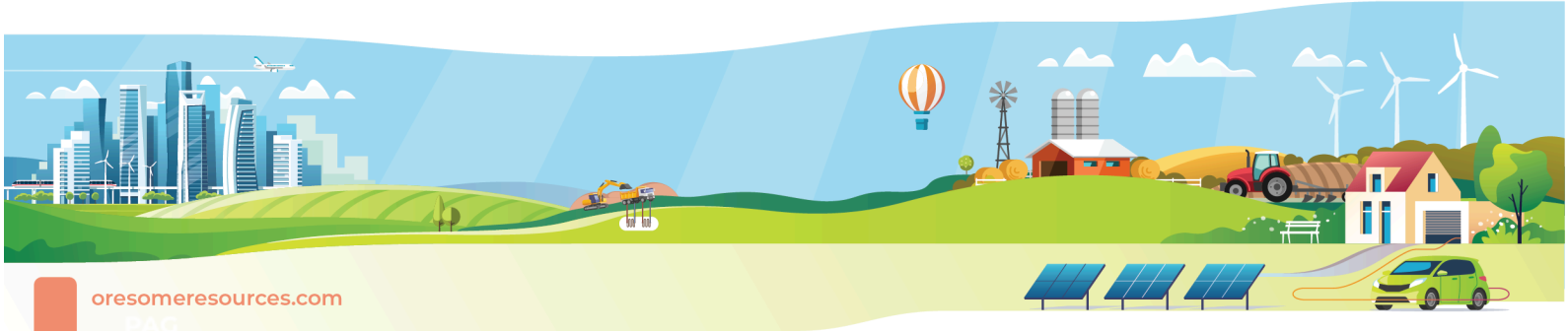
Turn it Off

Turning off lights that aren't being used is a simple and effective way to save energy. It does not require any equipment and the energy savings can be significant. Turn off lights whenever a room is unoccupied, even if it's only for a few minutes. Try putting reminders next to light switches until you get into the habit.

Replace Incandescent Bulbs with CFLs

Compact Fluorescent Lamps (CFLs) use about one-quarter (or 75% less) of the energy that incandescent bulbs use to deliver the same amount of light. Replacing your home's incandescent bulbs with CFLs can cut down on energy use by more than 200-kilowatt hours a year.

That's about as much energy as you would use watching 800 nights of television, playing 3,000 CDs or using a 60-watt incandescent bulb to light 800 evenings.



Install lighting controls

Installing lighting controls, such as dimmers, timers, motion sensors and photocells, can be a simple and efficient means of reducing lighting energy use and costs. When lights are left on unnecessarily, or areas are lit excessively, energy costs increase. Automatic lighting controls allow you to control the amount of lighting in an area and have it turn on just for the time it is needed.

Purchase Green Electronics

Consider sustainability standards when purchasing new electronic or computer equipment. Products with an energy star rating may reduce your home energy consumption by up to 60%. A four star rated TV, for example, uses about 30% less energy than a standard unit and is rated to consume one watt or less when switched off.

Efficient Refrigeration

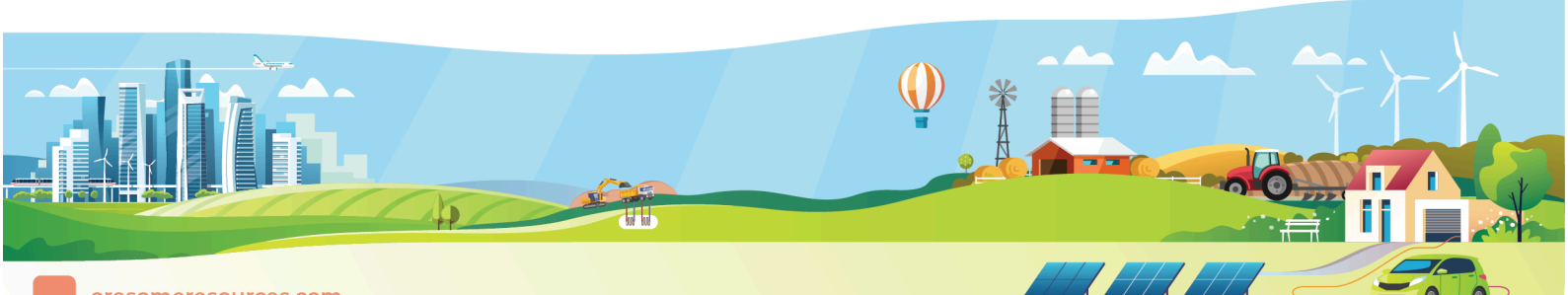
Refrigerators and freezers are two of the most significant energy-consuming appliances. If your appliance is old or not working well, it might be a good investment to replace it. If replacing your fridge or freezer is not feasible right now, keep it well-maintained and use it efficiently. The most important action is the easiest—unplug unnecessary fridges and freezers. Second refrigerators and freezers are often under-used or unused appliances. They also tend to be older, less efficient models. Using one large refrigerator is more efficient than running two smaller ones.

Efficient Washing

Using cold water is the single most important way to reduce the energy consumption of your washing machine. The next most important step is to use an energy-efficient machine. A front-loading, ENERGY STAR-approved washing machine will save both water and energy. About 90% of the energy consumption of washing machines is for heating water. If you wash and rinse your laundry with cold water, you'll save this energy and most fabrics will last longer.

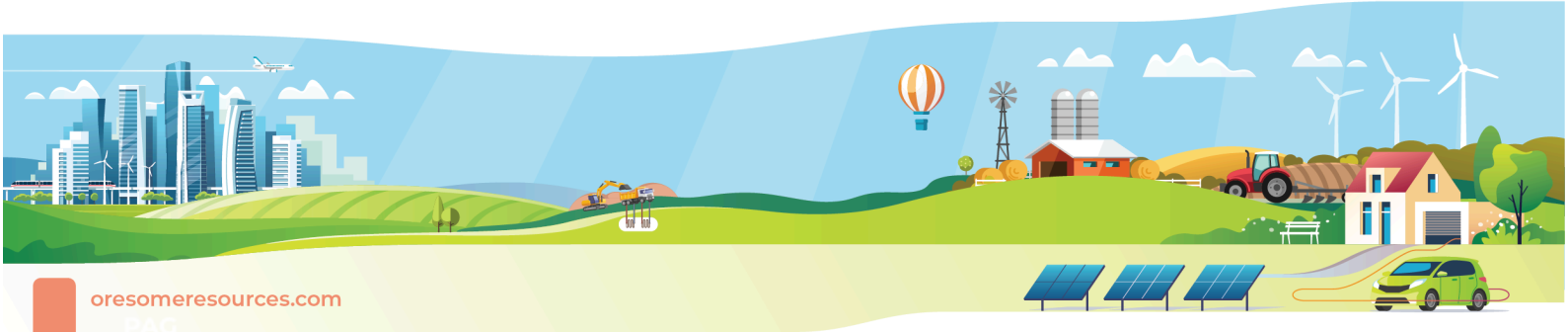
Efficient Drying

After the refrigerator, an electric clothes dryer typically uses the most electricity of any appliance in a home. Reduce your energy use by hanging your clothes to dry whenever possible. An outdoor clothesline uses heat from the sun and the flow of air. An indoor clothes rack may take longer to dry, but it can be an energy-efficient alternative to the clothes dryer. When you do need to use the electric dryer, make sure you're using it as efficiently as possible,



or use it in combination with line drying to save energy and reduce wear on your clothes.

Links

- Queensland Department of Minerals and Energy site provides examples of energy policy and energy saving initiatives in Queensland. The site also includes a board game for students to play.
- The EnergyWise calculator helps you estimate the costs of your household electricity use.
- British Columbia Hydro (Canada) provides more details on each of the efficiencies outlined above.

Queensland Resources Council acknowledges British Columbia Hydro for the use of these images.