

# Energy Efficiency

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## Slide 2: *Energy Efficiency: What can we do?*

### *Household lighting:*

- ESKOM has an initiative allowing people to exchange old light bulbs for energy-saving compact fluorescent light bulbs (CFL's).
- In the previous roll-out in KZN the new bulbs saved as much as 131 MW during peak times – enough electricity to power approximately 81 875 average homes!
- However, fluorescent bulbs contain small amounts of mercury, which is toxic.
- Woolworths and Pick n Pay have specially designed bins for the disposal of used CFL's.

### *Solar heating:*

- Eskom offers a rebate on solar water-heating systems.
- Through its Solar Rebate Programme Eskom is offering homeowners rebates of 15 to 20 percent on the cost of installing solar water-heating systems.
- Homeowners can thus save between R1 860 and R9 000 on the cost of a solar water-heating system with a total cost of between R 14 000 and R 33 000.
- The Solar Rebate Programme had been developed to ensure that consumers obtain systems at a discount, whilst at the same time encouraging them to buy quality systems from accredited suppliers.
- Thanks to Eskom's Solar Rebate Programme consumers can buy solar heating systems from accredited suppliers and claim back part of the cost – an initiative to encourage the use of renewable energy.

## Slide 3: *Energy Efficiency: Domestic Appliances*

- Most modern appliances and machines, ranging from cars to kettles, are much more energy efficient than their older counterparts.
- Domestic appliances such as kettles and washing machines use large amounts of electricity.
- Energy-efficient appliances are designed to waste as little energy as possible.
- For example, an energy-efficient refrigerator will be better insulated, be less noisy, have no ice on the inside or condensation on the outside, will probably last longer and will use less electricity.
- Energy-efficient appliances actually amount to 'more with less'.

## Slide 4: *Energy Efficiency: Transport*

- South Africa developed its first electric car, the Joule.
- Due to financial reasons it could not be commercially developed.
- It is better to make use of public transport such as buses or trains to get to work.
- If possible, cycling or walking is even better!
- One of the most energy-efficient and clean cars produced today is the Toyota Prius.
- Hybrid cars have a battery-powered electric motor and a petrol engine.
- At low speeds the electric motor moves the car.
- At higher speeds the petrol engine takes over and the battery recharges.
- Low fuel consumption.
- Low CO<sub>2</sub> emissions.

**Slide 5: *Passive Solar Energy***

- This type of energy can be used for providing heat in winter, and cooling down in summer.
- Buildings can be designed to keep energy in during winter times and keep heat out during summer times.
- Insulation can help regulate a home's temperature.
- A well-insulated house will be warmer in winter and cooler in summer, creating a healthier living environment.

**Slide 6: *Reuse & Recycle: Conserve Energy***

- Everything we use has to be made somewhere.
- These manufacturing processes use large amounts of energy.
- If we throw things away after we have used them, the energy is wasted.
- We can save energy by reusing and recycling things.

**Slide 7: *Conclusion: The way forward?***

- 'The world will not evolve past its current state of crisis by using the same thinking that created the situation.'  
*Albert Einstein*
- We should start planning to use renewable energy.