

A power problem and what is being done

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GROWING demand for electricity, which has not been adequately matched by an increase in capacity from power utility Eskom, has left many South Africans, literally, in the dark. The country has been hit by blackouts and planned power outages in recent months as the national grid – already creaking under the load of a burgeoning economy – has had to cope with a failure at Cape Town's Koeberg nuclear power station and maintenance shut-downs at other stations. Delays on decisions over possible privatisation of certain Eskom sectors meant no new construction of power stations were initiated from 1999 to 2003.

Last year, Public Enterprises Minister Alec Erwin said: "Government has accepted the responsibility that new power stations were not built in time."

Work on new power stations is now under way, and in the meanwhile, Eskom has been using premeditated load shedding – switching off, in rotation, electricity to different areas – in an effort to cope.

Eskom is also appealing to the public to moderate their consumption of power.

Households have been encouraged at certain times to turn off non-essential appliances and lights.

So far, eThekweni, has got off relatively lightly.

Nevertheless, in response to Eskom's call for municipalities to prepare to shed a percentage of their non-critical load, the city has scheduled a supply interruption programme. It will be implemented if required.

Ivan Laban, Operations Manager of eThekweni Electricity, said supply interruptions normally lasted two hours, "and in most cases customers were informed in advance".

Laban blamed some of eThekweni's recent blackouts on the hot weather, possibly exacerbated by climate change. The city suffered extremely humid conditions over this period, and electricity consumption soared as residents turned

on their air conditioners.

Laban said high rates of electricity consumption overloaded power cables. "High voltage cable terminations are also failing due to the excessive temperatures experienced," said Laban.

Eskom, with the help of the SABC, has introduced a programme to warn the public when the national grid was under strain.

This involves the lighting of power alert messages on television. The alerts have four status levels: green, orange, red and brown. Green indicates a limited strain on the national supply. Orange indicates an electricity strain; during which consumers are prompted to switch off non-essential appliances, such as tumble dryers.

Red indicates an increased strain on the power supply, with consumers prompted to switch off stoves, kettles and unnecessary lights.

Brown indicates significant strain and that load shedding is in progress in parts of the country.

Sandile Maphumulo, Head of eThekweni Electricity, said the city had a "dependable" electricity supply.

He said Durbanites had, on the whole, complied with calls on them to cut back on power use, and had put into practice energy saving tips.

Maphumulo said Durbanites were increasingly switching to compact fluorescent lamps, which were energy efficient. This was "a step in the right direction" for the city, towards saving electricity and staying out of the danger, outages zone.

Another step in the right direction was the city's landfill gas-to-electricity projects at Mariannhill, Bisasar and La Mercy landfill sites, which are expected to eventually generate 10-megaWatts of electricity.

Lindsay Strachan, Project Manager, said the scheme involved using greenhouse gases emitted from landfills to generate electricity, which would be fed into the eThekweni municipal grid.

The Mariannhill project, he said, would generate R13.2-million from the sale of electricity to Durbanites.

Strachan said: "Though

only a small percentage of the city's electricity needs will be generated, the project will make a sound contribution to the department of Minerals and Energy's goal of green power production by 2013."

He said green power was a cleaner, more refined way of generating electricity.

Strachan said about 20 000 tons of coal were burned every day to generate electricity for the city.

He said the landfill power project was about more than making money – it was also a waste management project.



CFL light bulbs and other ways to save energy ...

AT HOME

- ❑ Turn off all lights, fans, computers and air conditioners and other energy-consuming appliances when not in use for more than half an hour.
- ❑ Replace regular light bulbs with compact fluorescent (CFL) tubes, as they last longer and use less electricity.

- ❑ Turn off all stand-by modes on appliances every time you leave the house and before going to bed.

- ❑ Reduce the temperature of your geyser to about 60C to save energy.

- ❑ Keep lids on pots when you cook to conserve heat and energy.

- ❑ The size of the pot should match the size of the stove plate; this can save

up to 25% electricity while cooking. Use pots and pans with a flat bottom as they consume up to 50% less energy.

- ❑ Close windows and doors when the heater or air conditioner is on.

- ❑ Close the fridge door every time you take things out and check that the seal closes well.

- ❑ Boil only as much water as you need and not a full pot or kettle every time.

- ❑ Insulate your geyser and hot water pipes with old blankets or insulating materials.

- ❑ Enjoy a comfortable indoor climate in summer and winter by naturally ventilating your room by opening windows daily; remember to switch off your heater, fan or air conditioner while ventilating.

- ❑ Skip the pre-wash if your clothes are not particularly dirty; this will save up to 20% of the electricity normally used for a wash.

- ❑ Save water and electricity by washing bed linen at 60C instead of 90C.

- ❑ Do all your ironing at the same time instead of in little lots.

- ❑ Check electricity or gas meters and take an interest in your energy consumption levels.

- ❑ Share energy consumption information with neighbours and discuss your electricity bills.

- ❑ Insulation is the most effective way of preventing heat loss. Insulating the ceiling will reduce heat and retain warmth in winter.

- ❑ Gas heaters or oil heaters are much more effective than electric bar heaters for heating rooms and they are less dangerous.

- ❑ Curtains should be open during the day to allow in the sun, and closed at night to keep in the warmth in winter.

IN THE OFFICE

- ❑ Switch off lights, fans, computers, photocopiers and other energy consuming appliances to sleep mode when leaving the office for more than half an hour.

- ❑ Boil only water you need instead of boiling a full pot or kettle every time.

- ❑ Replace regular light bulbs with compact fluorescent tubes, as they last longer and use less electricity.

- ❑ Turn off room lights and use natural lighting.

- ❑ Office energy use misconception: Computer monitors in sleep and screen saver modes are not using any electricity. Turn off monitors overnight or even for long meetings and lunches.

- ❑ Close windows and doors when the heater or air-conditioner is on.

- ❑ Enjoy a comfortable indoor climate in summer and winter by naturally ventilating your room properly every day. Switch off your heater, fan or air conditioner while ventilating.

For more information and tips on energy efficiency, contact Manisha Maganlal, eThekweni Municipality Environmental Management Department, on 031 311 7382.