

Bringing light to a new SA

THE EDRC IS IN THE PROCESS OF presenting its energy policy proposals to a wide range of organisations. First to see the proposals were international and local energy experts and politicians, who were invited to a workshop in Cape Town in late September.

The aim of the policy project, says the EDRC, is "to develop policy options for widening access to basic energy services for the urban and rural poor".

This task is somewhat daunting. According to the EDRC's research:

- Only about 36% of South African households are electrified.

A host of new energy policy proposals have recently been put on the table by the University of Cape Town's Energy for Development Research Centre (EDRC). **KERRY CULLINAN** reports

- 87% of black schools and 3 000 clinics countrywide are without electricity.

- 430 different bodies distribute electricity in the country.

- The poorest households, which do not have access to electricity, pay far more than electrified households for energy.

If Eskom maintains the level of its current electrification drive (250 000 connections a year), the EDRC estimates that 65% of all households will be electrified by the year 2010.

This is not enough, argues the EDRC. What is needed is a "concerted, integrated energy plan". For example, 500 000 connections a year will bring electricity to 85% of all households by 2010.

A key component of the centre's policy proposals is that there should be a national flat rate for all domestic consumers of electricity, as opposed to rural areas having to pay more for power.

A realistic figure is 20c/unit (excluding VAT), a 2c increase on the current national average of 18c/unit. To achieve one flat rate, the distribution of electricity — presently being handled by local authorities — would have to be rationalised.

However, workshop delegates pointed out a number of obstacles to achieving both a national rate and rationalisation.

"What happens if there is no national framework for elec-



■ Untangling the bureaucracy caused by apartheid

tricity distribution, and regional governments are given exclusive power over electricity distribution?" asked the Local Government Negotiating Forum's (LGNF) Andrew Boraïne.

Boraïne also pointed out that electricity was a major source of income for local authorities. This income was then used to cover other, less profitable aspects of local authorities' work. "What will happen to local government finances if local authorities are no longer in control of energy supply?" asked Boraïne.

Billy Cobbett, the ANC's local and regional government coordinator, added that it would be extremely difficult to introduce a standard tariff in some areas.

"The average national tariff may be 18c/unit now, but there are thousands of different tariffs. In KwaNdebele, for example, some people are paying 1c/unit. In Port Elizabeth, electricity would have to be increased by 65% to reach the national average," said Cobbett.

Counting the costs

According to a number of surveys, people using electricity spent significantly less than those using other energy sources. A survey done in Khayelitsha, for example, found that those with electricity spent an average of R67 a month on energy, while those without spent R127.

But the entrance barriers for poor people trying to change to electricity are high. Appliances like electric stoves are expensive in comparison to primus stoves.

In addition, the supplier is faced with high connection costs. The centre estimates that it costs approximately R3 000 to connect each informal shack in urban areas to electricity. This figure rises to as much as R7 000 for scattered rural settlements.

However, delegates and EDRC staff emphasized that this was a once-off cost and the positive spin-offs should be felt for some time.

The EDRC has proposed that an Electrification Fund be set up to raise the bulk loan finances necessary for electrification, and to allocate grant finance to poor consumers as fairly as possible.

The EDRC has also proposed that energy centres be established in com-

munities to educate consumers on how to use energy efficiently and safely and advising them on which appliances to buy. However, conference delegates asked where the money would come from to establish such centres.

Coal

The EDRC's proposals, while concentrating on electricity, also looked at other sources of energy popular among poor households.

In the PWV area, coal is a very important energy source. Almost 70% of households use coal, which can be bought relatively cheaply as the Eastern Transvaal coalfields are nearby. Some 45% of electrified homes in the PWV also still use coal.

Coal is an important source of energy in the Durban metropolitan area and Pietermaritzburg, probably as these areas are close to coalfields in Northern Natal.

Coal is popular because it can provide three services at the same time. It can heat water, heat living spaces and provide energy for cooking all at once.

The major disadvantage of the bituminous coal used in South Africa is that it causes air pollution, which seriously affects the health of poor South Africans. Acute respiratory infections are the second greatest cause of death in South African children.

The EDRC thus proposes that the development of low smoke coal is given "highest priority". Three varieties of this coal are being developed in Southern Africa. Only one, Wundafuel, is ready for domestic distribution. However, at this stage it is significantly more expensive than the coal used at present. It also proposes a tax on 'dirty' coal to discourage its use.

Paraffin and gas

Paraffin is also very popular. It is the country's main energy source for cooking. It is also the biggest source of energy for poor homes in Cape Town, Port Elizabeth and East London.

Its main advantage, consumers say, is that it can be bought in small quantities from local shops. This was especially important for poor homes operating on very tight budgets.

However, consumers also identify many disadvantages. It is a fire hazard, especially in informal settlements where homes are often made from flammable

material. Children are vulnerable to being poisoned by paraffin by drinking it accidentally. It blackens pots and causes skin irritation.

To reduce the cost of paraffin, the EDRC argues that its distribution should be streamlined. Oil companies should be persuaded to be more directly involved in distribution to domestic consumers. Low cost child-proof bottles also need to be developed to eliminate the danger of poisoning.

Gas is also a fairly popular source of energy, particularly in the Cape. However, it can only be bought in fairly large amounts.

As with paraffin, gas distribution could be streamlined to reduce its price. Smaller canisters could also be produced. Communities, which generally fear using gas, also need to be educated about how to use it safely.

Batteries are used for appliances like televisions and radios. However, these are expensive and need constant recharging.

Where to now?

The EDRC has essentially become the think tank responsible for future energy policy development.

Eskom and the EDRC are in close contact. The EDRC is also providing research backing to the National Electrification Forum.

Its 'road-show' of policy proposals is aimed at promoting a common vision among influential players of what is needed to address the energy needs of poor South Africans.

Judging by the fact that Eskom and ANC officials could share ideas and debate policy openly at the EDRC workshop, the centre has already achieved considerable success.

● The bulk of this article is drawn from research done on urban energy patterns. The next issue of RECONSTRUCT will look at some of the EDRC's other research in more detail. ■

'What happens if regional governments are given exclusive powers over electricity distribution?'