
ELECTRIFICATION – ESKOM'S VISION

by Rob Gordijn

Eskom's vision is simply 'Electricity for All' and the result of this vision has been an entirely different approach to the conventional forms of tariffs, wiring, metering etc. A tariff based on customer needs has been introduced. The S1 tariff consists of an initial charge of R30 for connection and thereafter the consumer will be charged 16c per unit.

The introduction of Budget Energy Controllers and the Ready Board concept will allow the signing-on of customers originally uncatered for.

For example, the Ready Board - which makes available several plug sockets and a light fitting without requiring the dwelling to be wired - can easily be used in mud huts, or can function as a distribution board where conventional wiring exists. The Budget Energy Controller - which requires the use of a pre-paid magnetic card to obtain access to the electricity paid for - reduces the need for meter readers, addresses, high initial deposits and allows the individual to budget in advance.

Effect of electrification

Up until recently, the rural areas only had access to electricity through the tariff D system, which by its cost structure put electrification out of reach for the majority of Black rural consumers. Those families who could afford electricity were substantially better off and therefore were not included in the sample for the rural areas.

Those areas electrified by the new S1 tariffs are still in the pioneering stage, so we can only at this stage forecast the effects of electrification in the rural areas.

In early 1989, ESKOM'S western Natal Region undertook a survey in four areas ranging from rural to urban. The four areas were:

Nkelebantwana
Peace Town
Dick's Halt
Frischgewaag (Bilanyoni)

Description of Pilot Sites

Dick's Halt, between Newcastle and Utrecht, has a

township appearance. It is laid out on a grid of intersecting streets; there are many shops, a butchery and small business; there are many solid-looking homes built with concrete blocks; it is within commuting distance of a reasonably large centre of employment.

On the other extreme, Nkelebantwana near Bulwer has a very rural appearance, typical of an unviable subsistence economy supported by remittances from migrant workers. Nearly all homes are made of mud. Although it is right on a main road, there are no significant centres of employment within commuting distance.

Peace Town in the Ladysmith area falls somewhere between these extremes. Like Nkelebantwana, most of the homes are made from mud, but there are a few which are built of concrete blocks and a number have sprouted TV aerials. It is better situated than Nkelebantwana with regard to employment opportunities, but it lacks the township flavour of Dick's Halt.

Frischgewaag in the Paulpietersburg area represents a formal township with infrastructures provided by the Natal Provincial Administration.

Inter alia, the following results were obtained from the survey:

The respondents were posed the question:

(Figure 1)
"How do you think you and your family's life would
would your life differ from the way it is now?"

Reasons for Believing Electricity is Important (Figure 2)

As an open-ended question the respondents were free to give these are the 5 most frequent replies given:

1. It is **versatile**/use for different kinds of things.
2. Everything will be **quick** and **fast**.
3. It will make **life easier**/more comfortable.
4. The house will be brighter.
5. Will be able to **save** money.

Figure 3 shows other less frequently given replies.

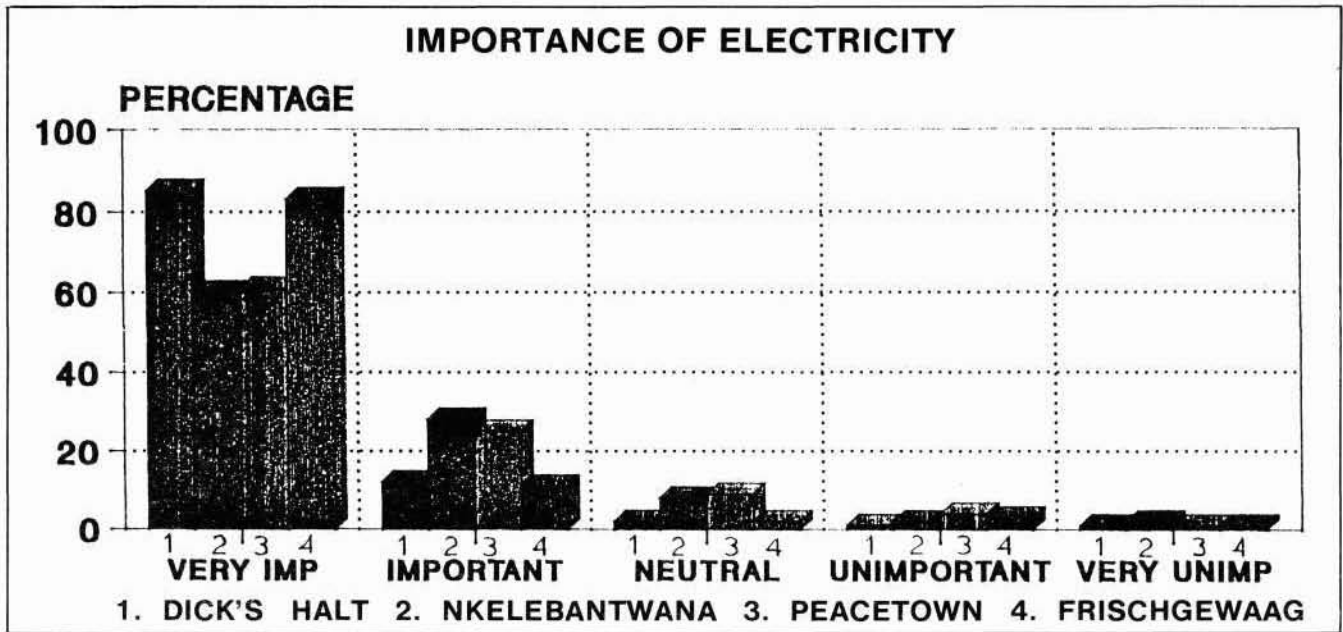


Figure 1

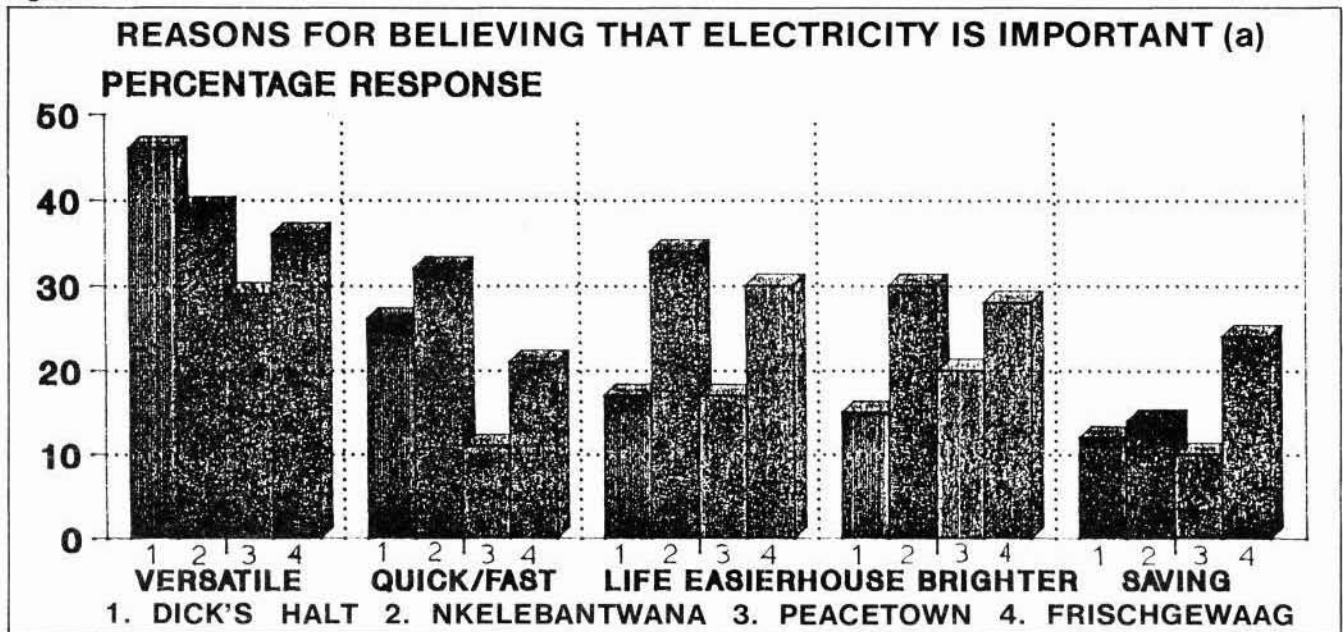


Figure 2

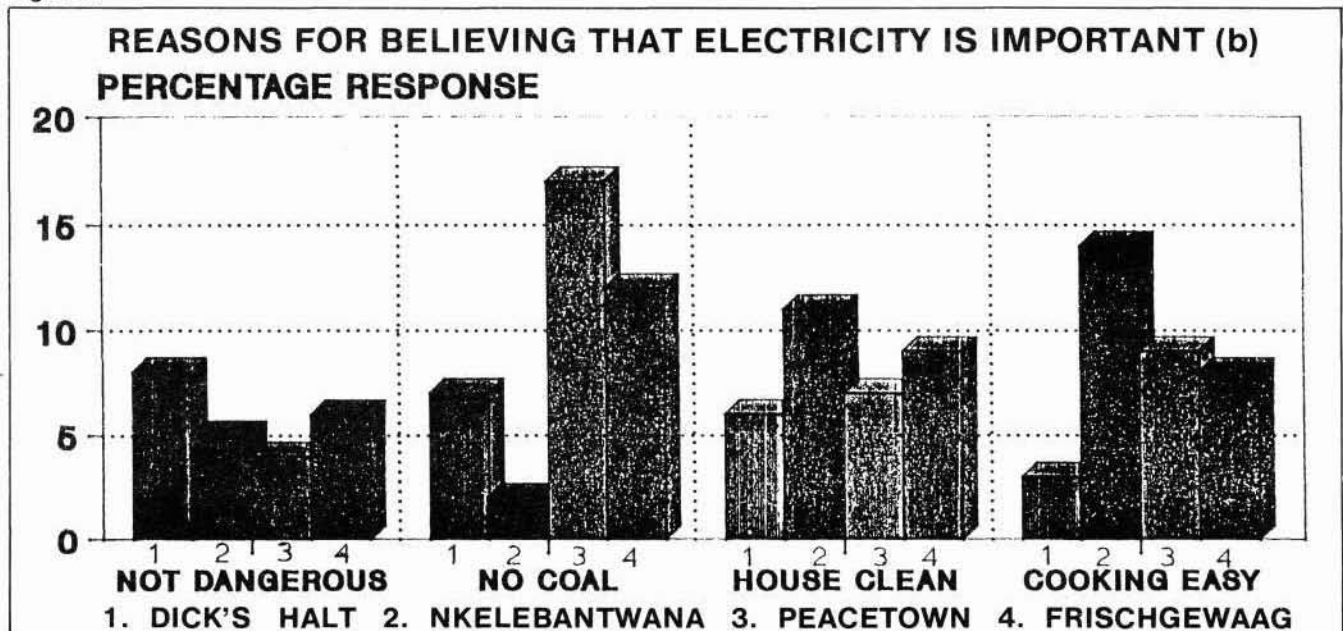


Figure 3

1. Appliances which would be purchased when electricity is available

These statistics are based on a rating system where the first three appliances were rated. This information was then checked to see if the consumer understood the cost of each appliance. This proved to be the case - Figures 4 and 5 show the top ten choices. (Incidentally the consumer perceived that he would have to save for a year to purchase a stove).

Lights

- to light up/brighten the house
- economical
- to study (probably lead to seeking work in urban areas)

Television

- entertainment
- education
- acculturation (become 'urban' whilst still living in rural areas)

Fridge

- keep food fresh
- less trips to store
(less reliance on Spazas? i.e. home-based small shops)

2. Beliefs of possible life-style changes

The respondent was asked to detail perceived lifestyle changes. What the results reveal is in fact the "benefits" the consumer is actually purchasing.

Figures 6 and 7 show the expected benefits from electricity. Figure 6 shows the top seven beliefs.

1. Will only use **one source** of energy i.e. the purchase of **CONVENIENCE**.
2. Electricity has **many uses** i.e. **MULTI-BENEFITS**.
3. Will do many things **more easily**.
4. Will be able to **save** money i.e. good **VALUE FOR MONEY**.

5. Everything will be **quick/fast** i.e. Purchase of discretionary **TIME**.
6. Will no longer use **wood/candles**.
7. The house will be clean (hygienic). i.e. The purchase of **HEALTH**.

Propensity to start a business

This question was posed to determine the receptiveness of introducing the Small Business Development Corporation (SBDC) to the area. The rationale behind such a move was that business development will make the community more affluent, and that businesses would need and consume more electricity.

The results, however, indicated that business formation was not a priority at this stage and thus we will wait until the consumer is familiar with the benefits of electricity before introducing the facilities of the SBDC.

Figure 8 shows the propensity to start a business.

Conclusion

The effect of electrification on the urbanisation process cannot be accurately determined, but based on research findings approximations can be made.

It would appear that electricity is (taking into account the cost factor) in high demand and the benefits of electricity appear to be accurately understood. The potential customer can, through the use of electricity, obtain the products of urbanisation and through television become more familiar with the norms and culture of urban residents.

Products such as fridges, stoves and later on vacuum cleaners, etc. all allow the housewife greater time. This 'time' can now be used in pursuit of other interests or work similar to those pursuits found in more urban areas. In an attempt to determine these changes, the housewife's daily routine was established and this will be used as a benchmark for similar studies later on.

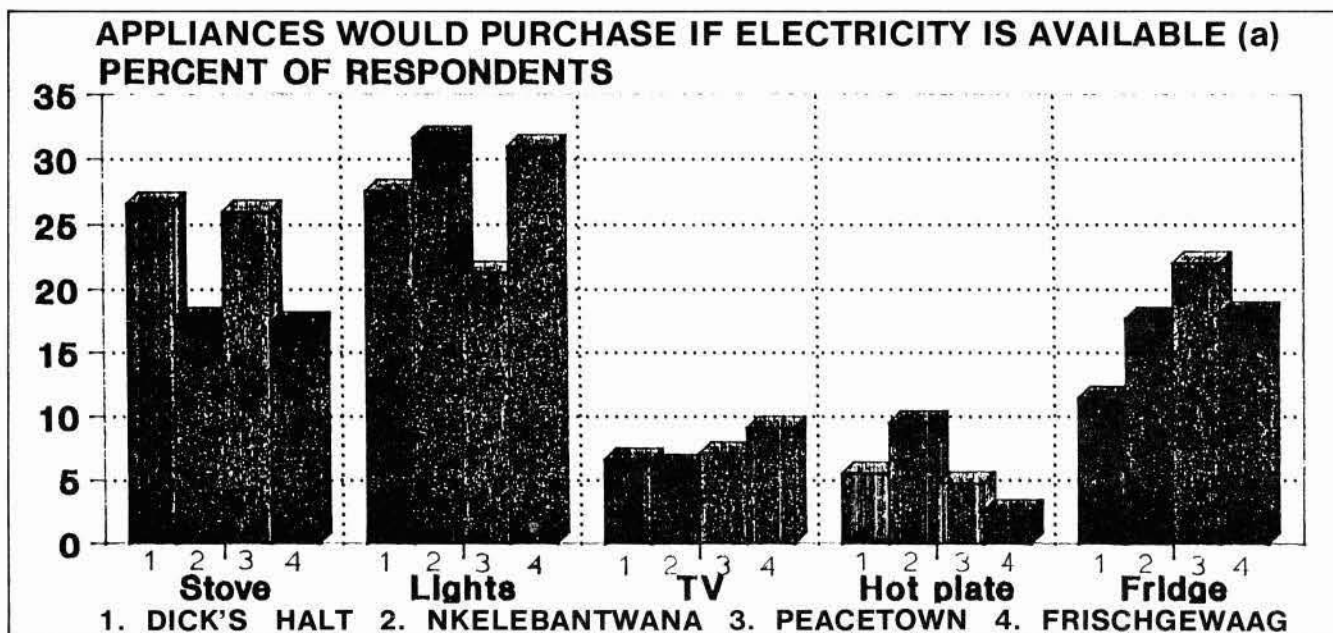


Figure 4

APPLIANCES WOULD PURCHASE IF ELECTRICITY IS AVAILABLE (b)

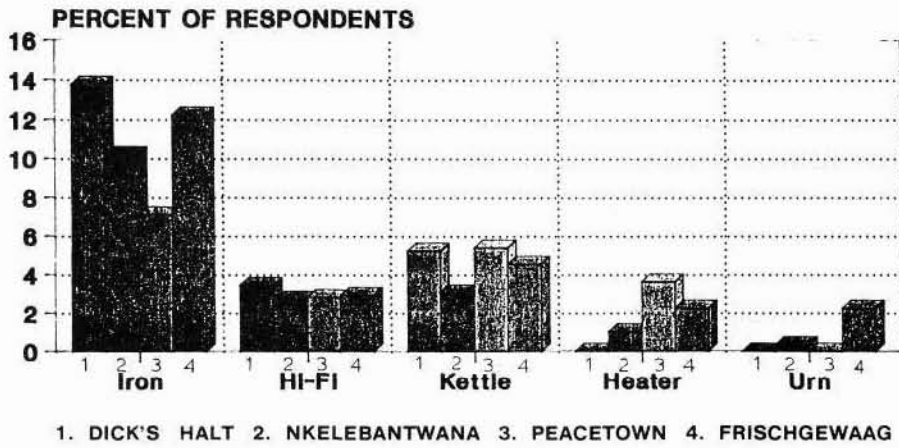


Figure 5

BELIEFS OF POSSIBLE LIVES WITH ELECTRIFICATION

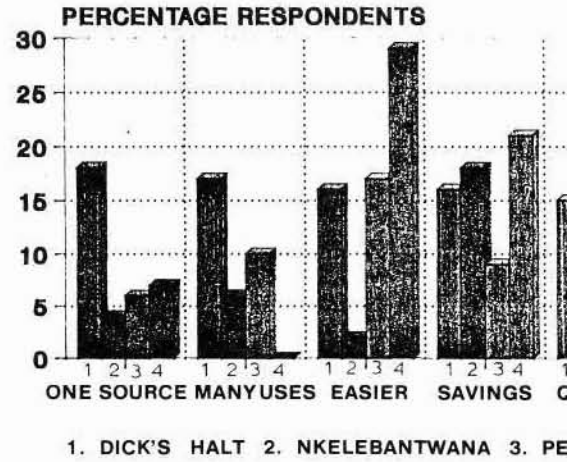


Figure 6

BELIEFS OF POSSIBLE LIFESTYLE CHANGE WITH ELECTRIFICATION (b)

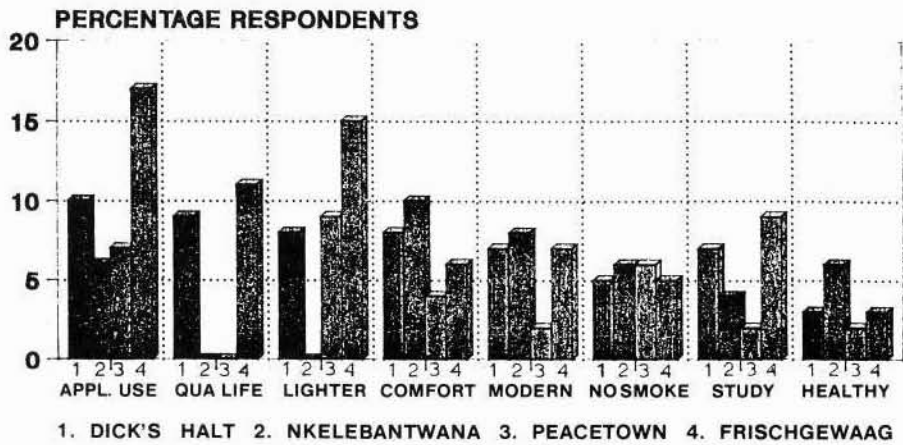


Figure 7

PROPENSITY TO START A

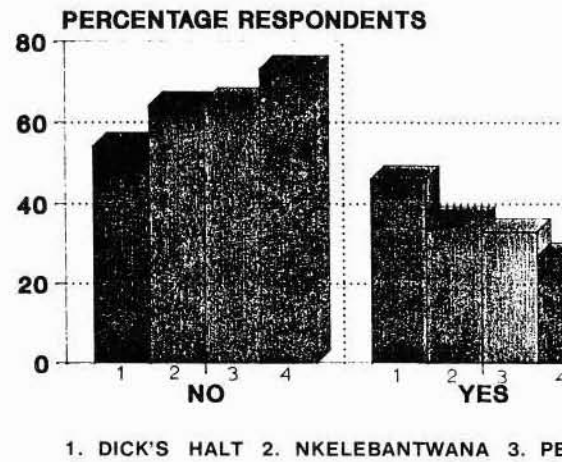


Figure 8