

## HOT WATER ENERGY ANALYSIS OF VARIOUS TESTS DONE AT THE KRUGER PARK.

# SIRAC

### 1) Huts tested

<u>Hut no</u>	<u>Method of Heating</u>
48	Geyser with Element
49	Solar Geyser with backup element
58	Heat Pump without Element
75	Geyser with Element

### 2) Meter Reading Results

<u>Hut no</u>	<u>Reading kwh 6 March 2009</u>	<u>Reading kwh 12 June 2009</u>	<u>Kw used</u>
48	4.5	566	561.5
49	0	345	345
58	189	394	205
75	360	772	412

### 3) Hut Occupancy (figures provided by Office in Kruger Park)

<u>Hut no</u>	<u>Visitors</u>
48	130
49	129
58	152
75	114

### 4) Summary of Results

#### a) SIRAC Heat Pump Test (2 huts of the same size)

<u>Hut no</u>	<u>Kw used</u>	<u>No of visitors</u>	<u>Kw/person</u>
58	205	152	1.35
75	412	114	3.61

The electrical energy consumption used by heat pump in Hut no. 58 is 62.6% less than used by the conventional geyser installed in Hut no. 75.

#### b) Solar Geyser Test (2 huts of the same size)

<u>Hut no</u>	<u>Kw used</u>	<u>No of visitors</u>	<u>Kw/person</u>
48	561.5	130	4.32
49	345	129	2.7

The electrical energy consumption used by the Solar Geyser in Hut no. 49 is 37.5% less than used by the conventional geyser installed in hut no. 48.