

CASE STUDIES ON ENERGY SERVICES & TECHNOLOGIES FOR LOW INCOME HOUSEHOLDS



SUSTAINABLE
ENERGY
AFRICA

Free Basic Alternative Energy (FBAE)

- The Free Basic Alternative Energy programme's objective is to support indigent households in un-electrified areas by providing them with free basic energy to meet some of their basic needs such as cooking, etc. This intervention by government is therefore aimed at alleviating some of the difficulties associated with access to energy in those households.
- If this FBAE policy is implemented, it will aid, support and contribute to the success of the Low Income Energy Services Strategy.

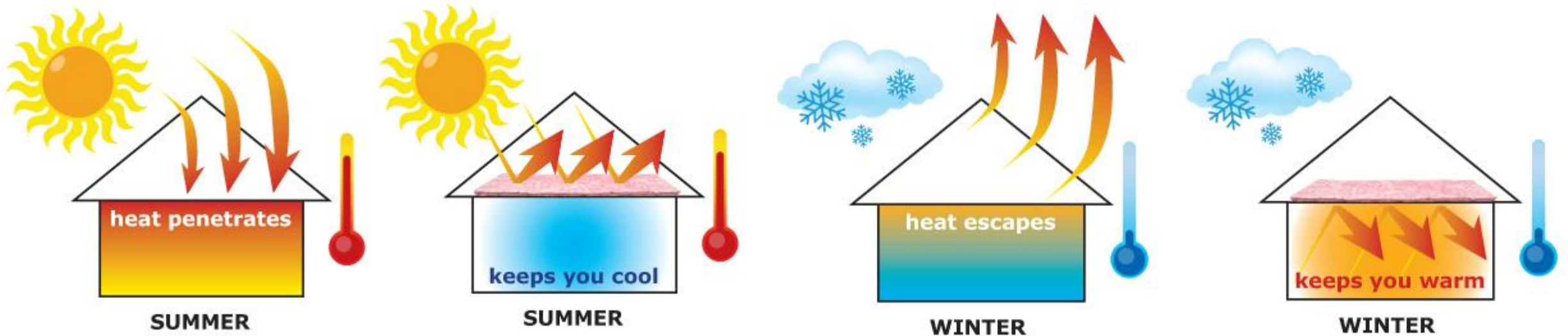
Mamre Ceiling Retrofit

- City of Cape Town - Sustainable Livelihoods and Greening Programmes
- To Implement a ceilings retrofit programme in the community of Mamre
- Vulnerable groups within the community (elderly, unemployed, chronically ill, dependents and disabled)
- Has benefitted 230 houses
- 2010



Insulated ceilings

- Insulated ceilings reduce heat transfer
- Climatic conditions will also influence the appropriate level and thickness of ceiling insulation needed to be installed.



Kuyasa SWH project

- CCT, SouthSouthNorth,
- CDM Project
- Kuyasa Project was a pilot project that involved the installation of solar water heaters, insulated ceilings and efficient lighting in 2300 households.
- Low-income communities
- Kuyasa, Khayelitsha
- 2008 – 2010



City Power

- Solar water geysers
- R700 million
- Funded by DSM fund – all customers that consume more than 500kWh per month are charged an extra one cent per kWh towards the fund
- 26 000 solar water heaters



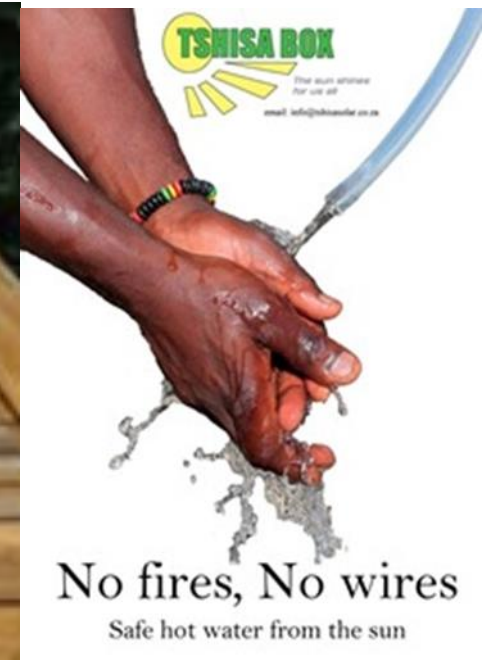
Solar Water Heater

- R4,500-R5,000 per 110 litre low pressure SWH. Should last 20+ years.
- Manufactured locally in South Africa and available from various suppliers.
- Saves on energy otherwise used to heat water.
- Environmental benefits



Tshisa box

- Hot water box
- Heats and disinfects 10 litres of water over 4 -5 hours in the sun
- No need any domestic plumbing system and requires no installation
- The retail price is R200 – R300



Aganang Municipality case study

- Aganang municipality as part of the FBAE provide indigent households with:
 - Biogel cook stove
 - 10L biogel
 - 2L Lamp oil
 - 2 lamps
- 500 households
- 2010



Protostar is a one-plate methanol-fuelled stove

- Operates on an alcohol-based, liquid Clean Cookfuel (methanol)
- 5 years
- Stove cost R160; fuel R6.90
- The fuel is delivered in sealed

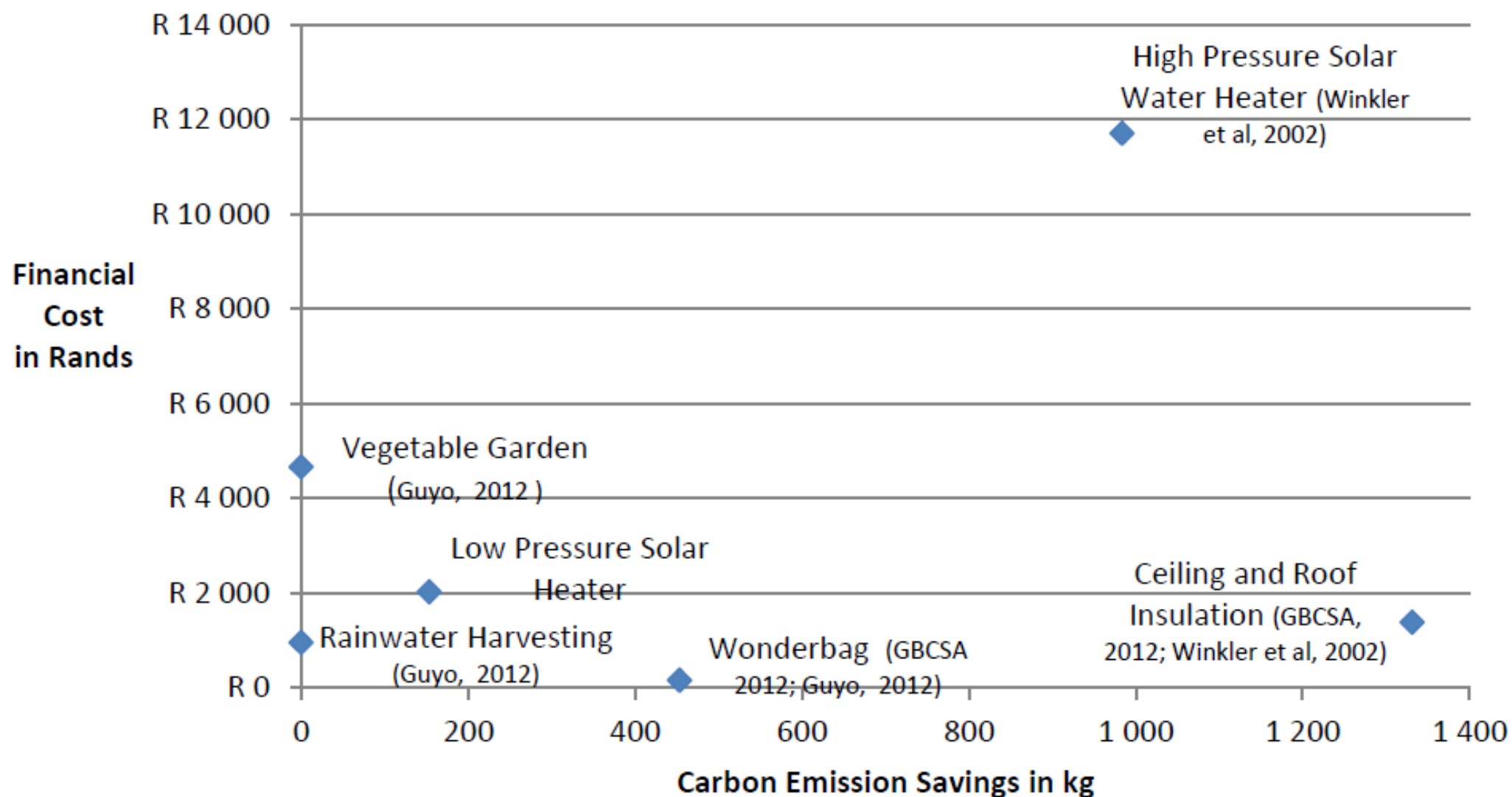


Heat Retention Cookers

- R150 – R280. Should last 5 years.
- Manufactured locally in South Africa and available from various suppliers.
- Saves on cooking time and energy but must be used in conjunction with another stove.



Financial Cost and Carbon Emission Savings of Various Types of Retrofitting Options



THANK YOU



www.cityenergy.org.za

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