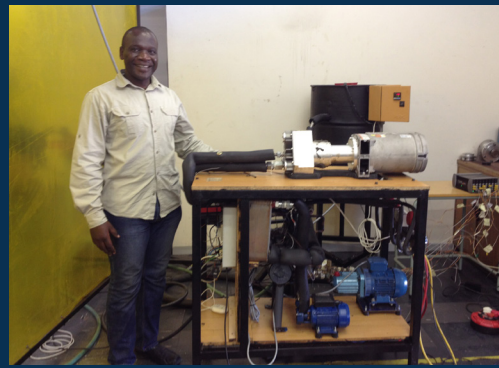




## Solar Heat Engine

The system harnesses energy from the sun and is able to store and convert the energy into electricity without relying on expensive solar panels and lead acid batteries. The product consists of the so-called Organic Rankine Cycle (ORC) to produce power. The size of the system initially is 1-4 kW, typically with the ability to power a cluster of homes.

The Solar Heat Engine seeks to provide an off-grid technology to combat the dire need for electricity in most regions and rural areas in South Africa. It will also allow people living in urban areas, the opportunity to go completely off-grid.



## Advantages

- Increased highly skilled capacity and knowledge base
- Ability to generate electricity after sunset
- Longer component lifetimes with a theft-proof solution

## Market Application

Off-grid technology that will produce power in rural areas as well as urban areas.

## Opportunities

- Farmers can use their waste to generate heat
- Guarantees for supply to cellular base stations located in rural areas
- Local manufacturing will result in Gross Domestic Product growth and job creation – i.e. positive economic impact

## Development Status

TRL 7: late prototype stage. Prototype has been successfully tested with two different refrigerants. The prototype is currently in the optimisation phase.

## IP Protection

Provisional patent application filed in South Africa.