

CASE STUDY MADAGASCAR

INDEPENDENT DRINKING WATER SOLUTION

Client

ADES Solaire, Switzerland (NGO)

Location

ADES Centre in St. Augustin, Madagascar

Introduction

The island Madagascar is suffering from a high rate of poverty. Most of the people have no access to clean drinking water.

In 2009 ADES and its supporters established a pilot project for the use of renewable energy for electrification in urban and rural areas. The project targets a successful implementation of solar technology which works under harsh conditions and provides a sustainable solution. Within the pilot project, Trunz Water Systems installed a solar powered water treatment unit which is operating fully independent using solar power. High quality components secure a reliable operation with only low maintenance requirements. The unit is compact and ready to operate – no additional gear/components required. A three-stage filtration process produces virus and bacteria free drinking water. The unit operates exceptionally energy efficient.



On-site conditions

Access to location	concrete platform, within the ADES Centre in St. Augustin
Ø amount of people served	approx. 300 people, living in neighbourhood to the centre
Water sources	well
Common contamination in raw water	organic contamination
Ø distance from source water to unit	approx. 20 metres (depth of well approx. 15 metres)
Ø water temperature	20 – 30° C
Ø air temperature	20 – 40° C
Site preparation work	concrete platform, fence
Ø sun radiation	6 – 9 hours



Technical layout

- 1 Water source (well) and feed pump 24V with 20m hose
- 2 Solar panels, 24 V, 160 Wp
- 3 Power Center TSPC max-700 (Batteries, Inverter, Controller etc.)
- 4 Trunz Water Box (TWB 002, Ultrafiltration), approx. 800 l/h

