Pamoja

Energy for Sustainable Development

95%

9 800

in EAST AFRICA

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Our Mission

Pamoja is an ESCO which:

- Empower local entrepreneurship in rural communities
- Own, Operate and Maintain small decentralised energy units





Pamoja CLEANTECH AB

pamoja CLEANTECH

The green plant

Telecom
Base station

Agricultural residues

Agroforestry

Biochar

Farmers

Entrepreneurial hub

Community

A 40 kW gasifier system





Proof of Pamoja Concept:
World Bank: Millenium Science Initiative

- Telecom Base station
- Mini-grid (86 households)
- Agricultural machinery



- Project partners:

UIRI

CREEC
Centre for Research in Energy and Energy Conservation

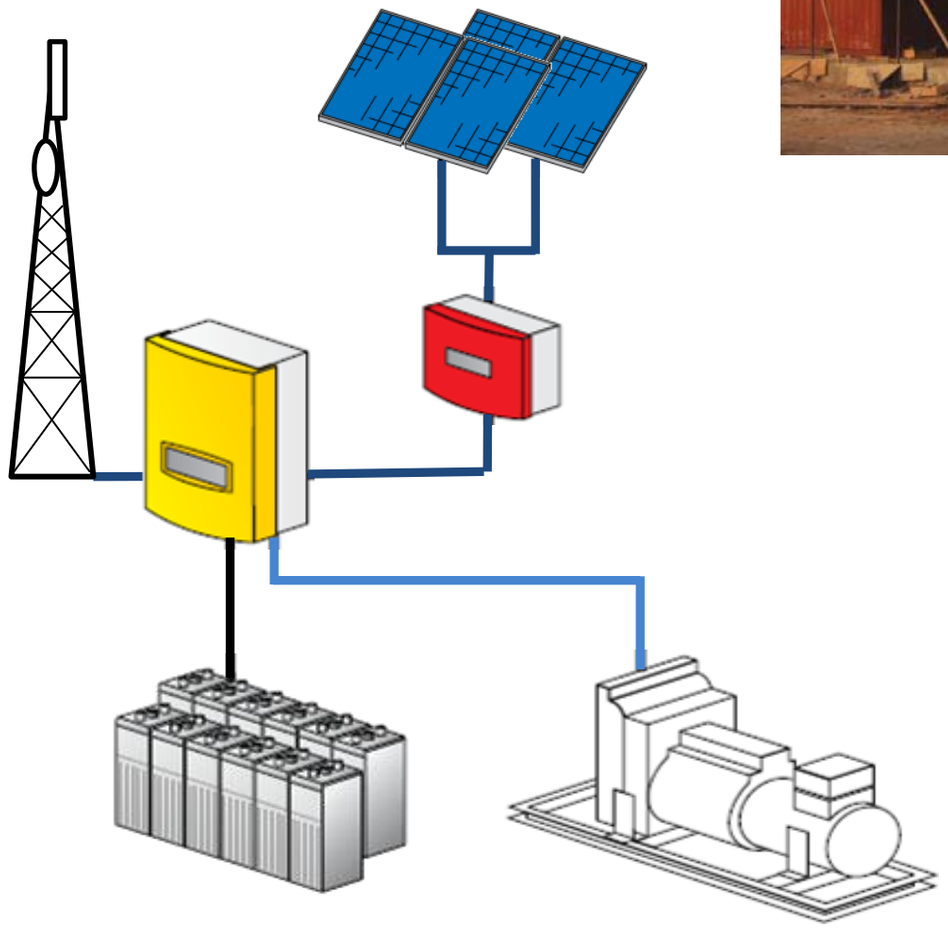
VI SKOGEN

Pamoja
CLEANTECH AB

A 11 kW hybrid system



1 kW







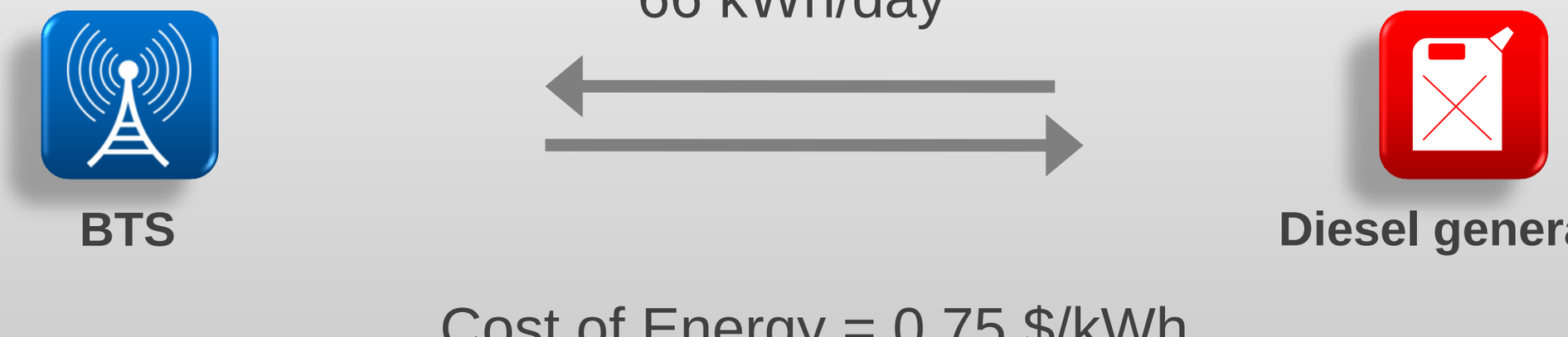
10 kW



Business Model

Pamoja CLEANTECH

Current Operator Model



Pamoja Model



30% of savings

Financial Plan

11 kW HYBRID SYSTEM

$ ~47 000

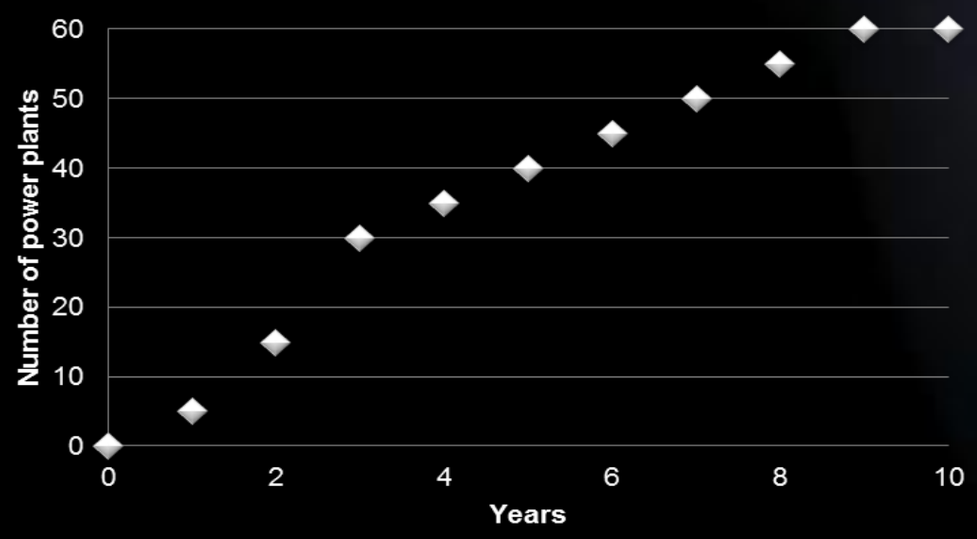
40 kW GASIFIER SYSTEM

$ ~47 000

MINI-GRID

$ ~13 000

EXPANSION PLAN



TOTAL INVESTMENT

$ 3 625 000

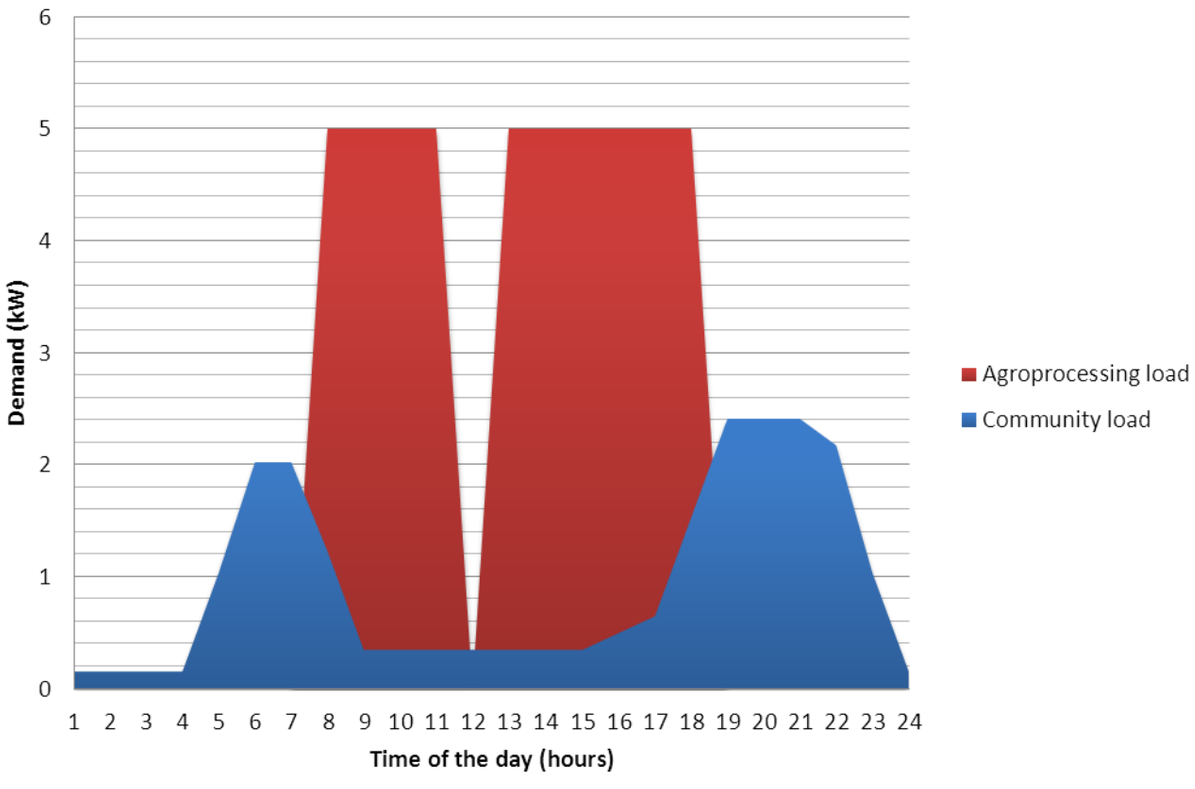
IRR

21,5%

Baseline Analysis

- Electricity demand
  - 86 households
  - Maize milling machine
  - Telecom antenna

- Expected load curves



- Business model
  - 10000 UGX/month for 25W (3,8 $)
  - 20000 UGX/month for 50W (7.6 $)
  - 100000 UGX/month for 300 W (37,8 $)
  - 4800 UGX/hour for the maize milling machine (1,8 $)

- Biomass available

Maize cobs 50 tons/year

Tree Plantation for Outgrower scheme

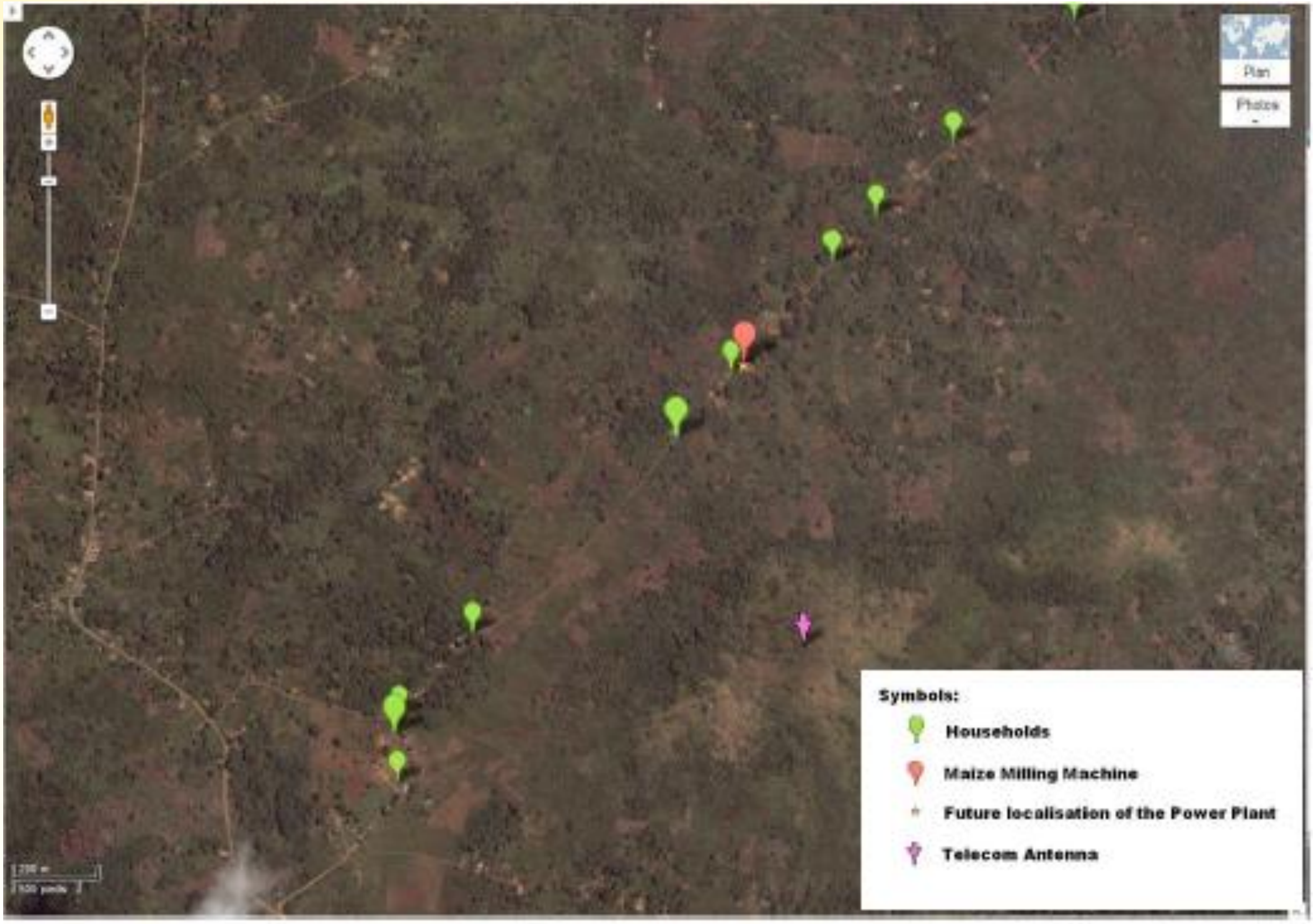


Figure 1: Map of Sekanyonyi

Short-term biomass supply chain





Local agriculture



Agro-processing



Agriculture residues









Storage

Long-term biomass supply chain







Local agriculture

Agroforestry
and
Woodlots

Agro-
processing



Agriculture residues





Wood chips





Storage

Long-term biomass supply chain







Local agriculture

Agroforestry and Woodlots



Agro-processing





Agriculture residues

Wood chips











Storage



Biochar



Electricity



Gasification









Pamoja CLEANTECH

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