

🏆 SAG-SEED WINNER 2016 🏆

Magiro Hydro Electricity Limited (MHEL) uses modified bicycle parts and simple motors to generate hydropower from a local waterfall, supplying inexpensive, renewable energy to rural village residents who otherwise would use kerosene and firewood.



Magiro Hydro Electric Ltd., Kenya

BUSINESS MODEL

Magiro Hydro Electricity Limited (MHEL) has developed an innovative small scale 30 kW hydropower plant in Mihuti Village, which is solely composed of locally available standard engines, recycled bicycle parts and generates electricity from a local waterfall.

As MHEL avoids the common connection charges of electricity suppliers and offers flexible pricing for its electricity supply, it offers affordable rates for both private households and local businesses, charging as low as USD 1 per month.

ENTERPRISE FAST FACTS:

Location	Murang'a County, Kenya
Year founded	2011
Sector	Manufacturing & Energy
Product/Service	Off-grid electricity

CONTACT

Mr. John Magiro

✉ johnmagiro@gmail.com

🌐 www.netfund.go.ke

Social impacts:

- Expanding off-grid electricity access to 77 households and small businesses in rural areas, targeting 500 households in three years.
- Enhancing quality of life through improving health from reduced kerosene exposure, educational opportunities and village safety from better lighting access.
- Saving time for women and girls by substituting collecting firewood for lighting.
- Increasing household available income as a result of cost savings on energy.

Environmental impacts:

- Limiting the amount of carbon emissions through clean energy which substitutes kerosene.
- Increasing energy security from a renewable energy source.
- Reducing deforestation from substituting firewood as fuel source.

Economic impacts:

- Developing affordable and quality means of generating electricity (\$1 per month) as compared to kerosene lamps (\$24 per month).
- Increasing productivity for small businesses who can serve customers for longer periods.

” MHEL reduces the environmental impacts of fuel and kerosene as predominant sources of rural energy.

Scaling up activities:

- Refine machinery through a step-up transformer to increase capacity to 300 kW in the next three years.
- Explore the possibility of expanding services into other counties in Kenya through partnering with financing institutions and county governments.



Partnership

- **Magiro Hydro Electric Limited (MHEL)** lays down the infrastructure and generates hydropower in Mihuti Village.
- **The National Environment Trust Fund** is a government organisation that provides business and technical training to MHEL.
- **The Pollination Project**, a global funding platform, has previously supported MHEL with a seed grant of Kes 100,000.



The 2016 SAG-SEED Awards in Burkina Faso, Ghana, Kenya, Mauritius, South Africa and Uganda are supported by SWITCH-Africa Green, which is implemented by UNEP with the assistance of the European Union.

About SEED

SEED is a global partnership for action on sustainable development that was founded by the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP) and the International Union for the Conservation of Nature at the 2002 World Summit on Sustainable Development. SEED is based on the understanding that the promotion of social and environmental enterprises is pivotal to a world of flourishing communities where entrepreneurship drives sustainable development. The 2016 SAG-SEED Awards in Burkina Faso, Ghana, Kenya, Mauritius, South Africa and Uganda are part of the multi-country project “Promoting Eco-Entrepreneurship in Africa” implemented by SEED under SWITCH-Africa Green (SAG). SAG is implemented by UNEP with the assistance of the European Union. Other project partners in SAG are UNDP and the United Nations Office for Project Services (UNOPS).

www.seed.uno/sag

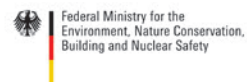
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