

# Next attraction: Anti-solar panels

SOLAR power has featured as a favourite subject in many of our conversations.

For very good reason: as we keep reaching out for green, renewable energy and seek to cut the global carbon foot print, solar power continues to be an exciting option.

Exploring the length, breadth and depth of the subject, we are further excited by the economy, flexibility, scalability and reach of this power source.

We are wowed by the wide uptake, spurred in no small part by rapid, intense technical development.

Here in Zambia, for instance, in less than two decades we have moved from peripheral, low-level use as hand-held lanterns in rural settings to main stream and multiple application across the entire national domestic, commercial and industrial landscape.

Everywhere you go, everywhere you look, there now are solar installations.

Every day, megawatts of electrical energy are being pumped into our national grid from solar sources, and this is steadily getting upscaled.

We have noted one big disadvantage of solar energy though.

It is a day time-only source. In the night, we have to rely entirely on stored power; we have to fall back on batteries.

Whereas batteries are a practical enough solution for smaller demands such as street lights and domestic appliances, it is much less so for heavier loads such as mines and factories.

This is where hybrid power mixes come in handy – solar power by day, hydro-power by night provides the total solution, to give on instance of a hybrid combination.

In one of our conversations some time last year, we got introduced to a very interesting innovation:

solar panels that are able to generate power in the night.

Right now, you shall not find these panels in any shop, much less in any public installation.

This is because the technology is still under development.

We therefore are glad, for the moment, to update ourselves on the progress being made towards bringing the panels to the consumer production line.

The panels in question are referred to as anti-solar panels.

Rather than generate power from sunlight, unlike regular panels these generate power by capturing heat emitted by earth into space in the night.

The process is referred to as radiative cooling.

At night, surfaces naturally release heat into the cold sky.

Anti-solar panels (which may also be referred to thermo-electric generators TEGs) convert the temperature gradient into electricity.

The immediate and most significant breakthrough anti-solar panels introduce is extending solar power generation beyond day light hours.

Energy is not needed only during day time; the ability to generate in the night is therefore revolutionary; it raises the stakes to almost unimaginable levels.

Anti-solar panels come with other advantages.

They are produced from cheap and easily available materials.

Just like regular panels, they are easy to install anywhere required – in domestic, commercial or industrial settings.

Anti-solar panels generate clean, green, carbon-free electricity that helps reduce global carbon foot print and promote a cleaner environment while sustaining our power needs.

Excess heat produced in work environments from



industrial processes contribute quite significantly to the global carbon foot print.

Anti-solar panels provide a ready solution: all this heat can be captured and instead turned into clean electric power.

That is a major score. What is the current status of development?

At the moment, anti-solar panels can produce only 25% of the amount of power produced by equivalent regular solar panels.

Ongoing research and development in materials, design and heat conversion technology promises very exciting possibilities though: in the not-too-distant future, these panels are projected to not only catch up with but exceed traditional units in efficiency and output.

Effectively, this means we shall be able to generate power from solar panels round the clock without pause.

In the current set up, battery back-up fills the gap when panels are no longer generating power after sunset.

The disadvantage of this is that batteries have limited capacity and shorter life-span compared to the panels themselves.

Also, batteries raise the cost element, compromising affordability particularly in domestic settings.

Eliminating the need for batteries while generating power round the clock is a quantum leap in clean energy development.

In homes or small businesses, this means that solar panels can keep fridges and other appliances, overhead and security lights on throughout the day



•ANTI-SOLAR panels (which may also be referred to thermo-electric generators TEGs) convert the temperature gradient into electricity.

and night without the additional cost of batteries.

In rural areas, we have milk collection centres where dairy co-operatives

aggregate their yield for supply to dairy processing companies.

Such a power solution has immediate, positive impact on the entire

supply chain, lowering production cost and passing on benefits to all players, not least the consumer.

The same will apply to

the butcher, the barber and many other businesses.

The anti-solar panel is surely on its way to our homes and businesses and it will be a big game

changer.  
*Let us get ready for it. For comments via voice sms and WhatsApp 0977796563 via email misheck3@live.com*

## Green Gold Social Innovation: Supporting efforts to strengthen climate change resilience

GREEN Gold Social Innovation, a community-based initiative is supporting Zambia's efforts to strengthen resilience against climate change.

The award winning climate innovation is working with more than 300 farmers to promoting

the planting of nitrogen-fixing and indigenous trees in a bid to improve soil fertility, increase crop yields, and strengthen resilience to climate change.

This is done through the planting on indigenous that mitigate climate change by taking up carbon dioxide, thereby reducing greenhouse gases from the soil.

Through an innovative social and environmental programme called "Forest Park" containing indigenous seeds, the initiative is working with local communities to address deforestation, climate change, water scarcity, and agricultural challenges.

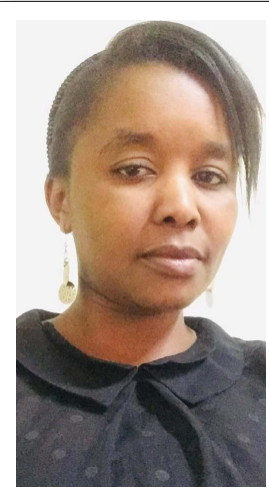
The one kilogramme (kg) Forest Pack contained more than 2,500 indigenous tree seeds that could cover a hectare of land with the aim of eliminating greenhouse gases.

Sold to farmers at K1 000, the seed pack contains a carefully selected mix of indigenous species, such as Mutondo (Julbernadier Paniculata), Musangu (Faidherbia albida), Acacia (Acacia Decurrens), and Musekese (Monkey Bread).

As well as wild fruit seeds like Kawawasha (Tamarind), Ngayi (Vangueria infausta) and Mabuyu (Baobab).

The initiative operating in Chongwe's Chilwela village combines environmental conservation, climate action, and community development.

The social enterprise creates green jobs for young people through



By KETRA KALUNGA

activities such as seed collection, nursery management, and the production of seedling bags, providing income opportunities while supporting environmental conservation.

Founder Hope Mkunte explains that these specific varieties have been chosen to provide a variety of benefits that include climate resilience, agroforestry and improved nutrition.

"For instance, farmers use the Musangu in our forest park to boost soil health for better maize yields and to reduce their dependency on expensive harmful artificial fertilizers," he says.

Mr Mkunte further says Mutondo is a miracle tree for climate mitigation and one mature tree can keep upto 25 kilogrammes (kgs) of carbon dioxide in the soil every year.

He says unfortunately, this resilient tree is

commonly cut down for charcoal and timber.

Mr Mkunte states that however, by reforesting it using the seed pack, the innovation is ensuring sustainable forest management by ordinary people.

He adds that Green Gold Social through the Forest Pack, targets farmers with at least one hectare of degraded land to help them restore the area.

The innovation encourages farmers who cannot afford fertiliser to adopt agroforestry by being trained to integrate the nitrogen fixing trees into farming systems.

In a period of one year, the initiative is targeting to benefit 500 farmers.

The climate innovation also caters for farmers with limited resources through the provision of a cheaper Forest Park valued at K500.

This cheaper pack contains four seed types which are Musangu, Acacia, Mutondo and Musekese.

The Forest Park innovation plays a critical role in promoting carbon sequestration, biodiversity recovery, and land restoration.

It further enables agroforestry systems that improve soil fertility and reduce reliance on chemical fertilisers.

The seed park also supports economic and social impact by creates income for women and youth seed collectors across Zambia, including Chongwe, Serenje, Livingstone, Choma, Mongu, Chama and beyond.

It further generates

green jobs for involved in sorting, packing and labeling the indigenous seeds.

Local businesses are also supported through the supply of packaging and branding materials.

Recently, the initiative scooped the climate innovation award that came with \$2 000 seed fund from the German International Climate Initiative (IKI), facilitated by the Food Agriculture Organisation (FAO) Zambia.

This was in recognition of its efforts in helping farmers eliminate the need for seedlings, providing sustainable jobs that promote environmental protection.

The seed fund would go towards scaling into full business and create about 200 jobs for the community of Chongwe district where the project was implemented.

About 20,000 indigenous trees would be planted this rain season to reforest and restore one square kilometre of land that has been degraded in Chongwe District due to illegal timber cutting and unsustainable burning of charcoal.

The initiative's mission is to combat deforestation and improve agricultural resilience through sustainable land-use practices, while empowering local communities to participate in environmental stewardship

Envisaging a future where communities prosper through sustainable agriculture, restored forests, and climate resilience.

### PUBLIC NOTICE - DECEASED BORROWER

Notice is hereby given that **Mr. Ruskin Jere**, now deceased, was a beneficiary of the Export Development Fund Facility and had an outstanding loan balance at the date of death.

All family members, beneficiaries, administrators, executors, creditors, debtors and any other persons having an interest in the estate of the Deceased are hereby notified that the outstanding debt remains payable by the estate in accordance with the terms of the financing agreement and the applicable laws governing deceased estates.

Persons with relevant information concerning the estate assets, administration proceedings or settlement arrangements are encouraged to contact the **Zambia Export Development Fund** within **30 days** of this notice regarding settlement of the outstanding debt and related obligations.

For further information contact:

**The Fund Manager**  
**Zambia Export Development Fund**  
**Tel: +260973044365**  
**Email: david.chewe@zda.org.zm**

**Date: 17<sup>th</sup> June 2026**

