



Lamu County Department of Water and Energy Harnesses Solar Power to Beat Persistent Blackouts



Picture 1: Solar panels installed by Lamu County Government

Lamu County has faced persistent and unpredictable electricity outages that have disrupted livelihoods, essential services, and overall socio-economic development. In response, Lamu County Department of Water and Energy has turned to solar energy as a practical and sustainable solution to keep critical systems running.

For many years, Lamu residents have struggled with prolonged blackouts lasting several hours or even days. These outages severely affected:

- **Small businesses**, which could not refrigerate perishable goods. Traders reported ongoing losses and unaffordable electricity bills when power was restored.
- **Fishermen**, who depend on cold storage to preserve their catch. Without electricity, fresh fish spoiled within hours, leading to substantial income losses
- **Households and schoolchildren**, who were forced to rely on kerosene lamps for lighting, resulting in health risks and increased costs raising concerns about the children's ability to study at night.



- **Essential services**, particularly water supply and public safety, which struggled without steady power.

The severity of the blackouts had escalated to a point where Lamu County could no longer rely on the national grid as its primary power source. This underscored the need for alternative energy to ensure continuity of critical services.

Lamu County Department of Water and Energy adopted a comprehensive renewable energy strategy centred on solar power.

Lamu County Department of Water and Energy implemented several targeted solar projects to mitigate service disruptions:

a. Solar-Powered Water Infrastructure: Water wells connected to the Shela freshwater springs were fitted with **solar-powered pumps**. This ensured uninterrupted delivery of clean water to households—even during extended blackouts.

b. Solar-Powered Desalination Plant in Mkokoni: A seawater desalination plant in Mkokoni now operates entirely on solar energy. This has strengthened the reliability of drinking water supply for coastal communities.

c. Solar Street Lighting: Towns and villages across Lamu have seen widespread installation of solar street lights. This has improved safety, mobility at night, and energy efficiency. As a result, residents of Lamu County are enjoying a myriad of benefits amongst them:

- ✓ **Improved Access to Basic Services:** The shift to solar power has ensured continuous operation of water systems and improved access to drinking water. The desalination plant in Mkokoni, for instance, provides reliable water supply even during grid outages.
- ✓ **Enhanced Safety and Social Wellbeing:** Solar-powered street lighting has made it easier for residents to move safely at night, supporting local businesses and enhancing security in previously dark areas.
- ✓ **Economic Stabilization for Local Traders:** Reduced dependency on unreliable grid power has helped stabilize incomes for small-scale traders and fishermen who were previously at high risk of losing perishable goods during outages.
- ✓ **Financial Savings for Households:** Families no longer spend heavily on kerosene or generator fuel, lowering the overall cost of daily living while also reducing exposure to toxic fumes.

Lamu County Department of Water and Energy bold shift to solar energy demonstrates how devolved governments can creatively respond to infrastructural challenges to protect



Picture 1 2: CECM Lamu County Department of Water and Energy, Hon. Tashrifah Mohamed at the



livelihoods and sustain essential services. While not a complete replacement for a dependable national grid, solar initiatives have significantly improved the quality of life for residents, stabilized key economic activities, and strengthened community resilience.

As Kenya continues to advance towards cleaner and more reliable energy systems, Lamu's model stands out as a practical and replicable success story for counties striving to enhance service delivery through innovation.

Further reading: <https://eastleighvoice.co.ke/coast/203848/lamu-county-turns-to-solar-as-widespread-blackouts-disrupt-daily-life>

What initiatives has your County taken to leverage on renewable sources of energy ?

Visit <https://maarifa.co.go.ke/> to learn more about the successful initiatives on service delivery our Counties are undertaking

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