Zambia energy storage for resilience

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Zambia is grappling with a severe energy crisis, driven primarily by a significant drop in water levels at its hydropower plants. This has led to a dramatic reduction in electricity generation, forcing the government to seek alternative solutions. To address the more than 1,300 MW energy deficit, Zambia has secured additional electricity imports from South Africa and Zimbabwe. Additionally, the government is launching a net metering program and planning to install generators at crucial locations like hospitals, schools, business areas, and markets.

The ongoing drought has severely impacted water levels in the Kafue River and Zambezi basins. This has resulted in the hydropower plants operating at less than half their capacity compared to the previous year.

Consequently, the country has implemented a minimum of 12 hours of load shedding daily to manage the shortfall.

In response to this crisis, Zesco launched a Net Metering Program on August 1, 2024. This initiative aligns with the Electricity (Net Metering) Regulations, 2024, and aims to promote renewable energy adoption among customers. The program allows customers to generate their own electricity and feed any excess power back into the grid. Net metering enables prosumers--consumers who also produce electricity--to offset their electricity bills by generating power from renewable sources such as solar.

Zesco explained, “Net metering is a system that allows prosumers to generate their own power from renewable energy sources. Any excess electricity generated can be fed back into the Zesco grid, effectively allowing prosumers to offset their electricity bills. This system not only promotes the use of renewable energy but also enhances energy security and sustainability in Zambia.”

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