

## **New business models for solar home systems: lessons from East Africa**

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### **ABSTRACT**

For dispersed households located far from the grid in the Philippines and other developing countries, the most practical and least cost way to provide basic electricity services, such as lighting and cell phone charging, is through individual solar home systems (SHS). Although the price of PV modules has dramatically declined in recent years, the cost of SHS and of the needed delivery mechanisms make them still unaffordable to the majority of this offgrid market. The approach by Governments typically is to provide partial subsidy and microfinancing assistance so that the required user payments to the SHS providers are in the vicinity of their willingness to pay, indicated roughly by their current expenditures for kerosene, candles or batteries. Several types of business models, such as the dealer model and fee for service model, have been employed for commercial dissemination of SHS, with varying success and limited coverage.

In the last 3-4 years, technical advances in LED and pico-solar technologies coupled with innovative prepayment schemes and “mobile money” have revolutionized the SHS industry, enabling the private sector to achieve very rapid market coverage. The East Africa region, partly because it was one of the first to widely utilize payments with mobile money, has led the world in the adoption of new business models for SHS commercialization. The author recently completed an assessment of the East African experience for the World Bank, specifically in the countries of Tanzania, Rwanda and Uganda. The presentation summarizes the assessment.

**KEYWORDS:** Off-grid; solar PV; business models