

# Power Is Knowledge

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**What is the Problem?** The mobile phone is taking off among low-income consumers at the “bottom of the pyramid”. In rural Africa, the boom is visible and remarkable. Yet, rural electrification is stalled and small commercial charging kiosks are inconvenient. If the devices are to really work for the poorest, they need better ways to charge their phone batteries.



**How do we know this?** My research on technology change in a Kenyan village (see [www.lmurphy.net](http://www.lmurphy.net)). Other research on mobile phones in the developing world (see [www.ids.ac.uk](http://www.ids.ac.uk) “Mobile Phones for Development”) hints at this gap.

**Goal of *Power is Knowledge*.** “Solar!” seem to be the answer. True? For whom? Where? With which devices? Let’s identify simple battery-charging products already on the market that work “well enough” and get those into markets and small shops. Let’s go further, and improve designs and durability, and link devices to local entrepreneurs, jobs and incomes.

**What are we doing:** We are identifying various micro-charging systems. Different products work better depending on your stance: the housewife-farmer, the bicycle taxi driver, the NGO health worker have different needs. We will examine real-life functionality, durability, and social relevance. We will estimate economic costs, feasibility and trade-offs vs. kiosks, (diesel) generators, or fixed solar systems. The project will also promote new designs, local manufacture and maintenance. The aim: to better serve the bottom of the pyramid as consumers, entrepreneurs, health workers, family members, and community development agents.



**Where?** The location for pilot tests is in Western Kenya, about 8 hours west of Nairobi. Livelihoods here combine small-scale farming, livestock, trading, and off-farm work. This “laboratory” builds on survey, participant observation, and other techniques. A fine-grained social science approach complements large-scale market research for industry concerns.

