

Financing Off-Grid Renewable Energy: Lessons Learned

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Addressing The Problem



- + Approximately **1.6 billion people** live without access to electricity, thus relying on kerosene and other biofuels for lighting

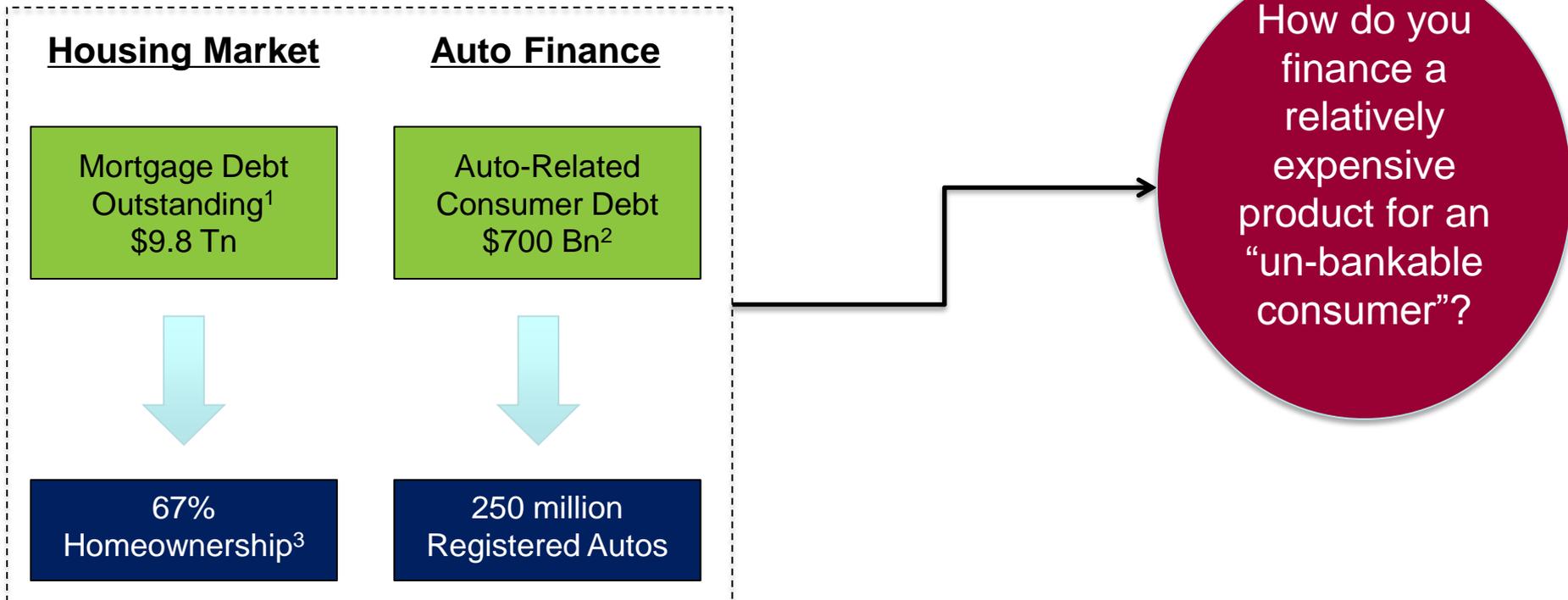


- + Several good companies at work and there is tremendous potential, but **worldwide penetration is only 1%**



- + “The price of the product is the greatest concern for most respondents; due to their typically low incomes, it is **difficult to pay the full purchase price at once...**”

Consumer Finance Can Unlock Markets



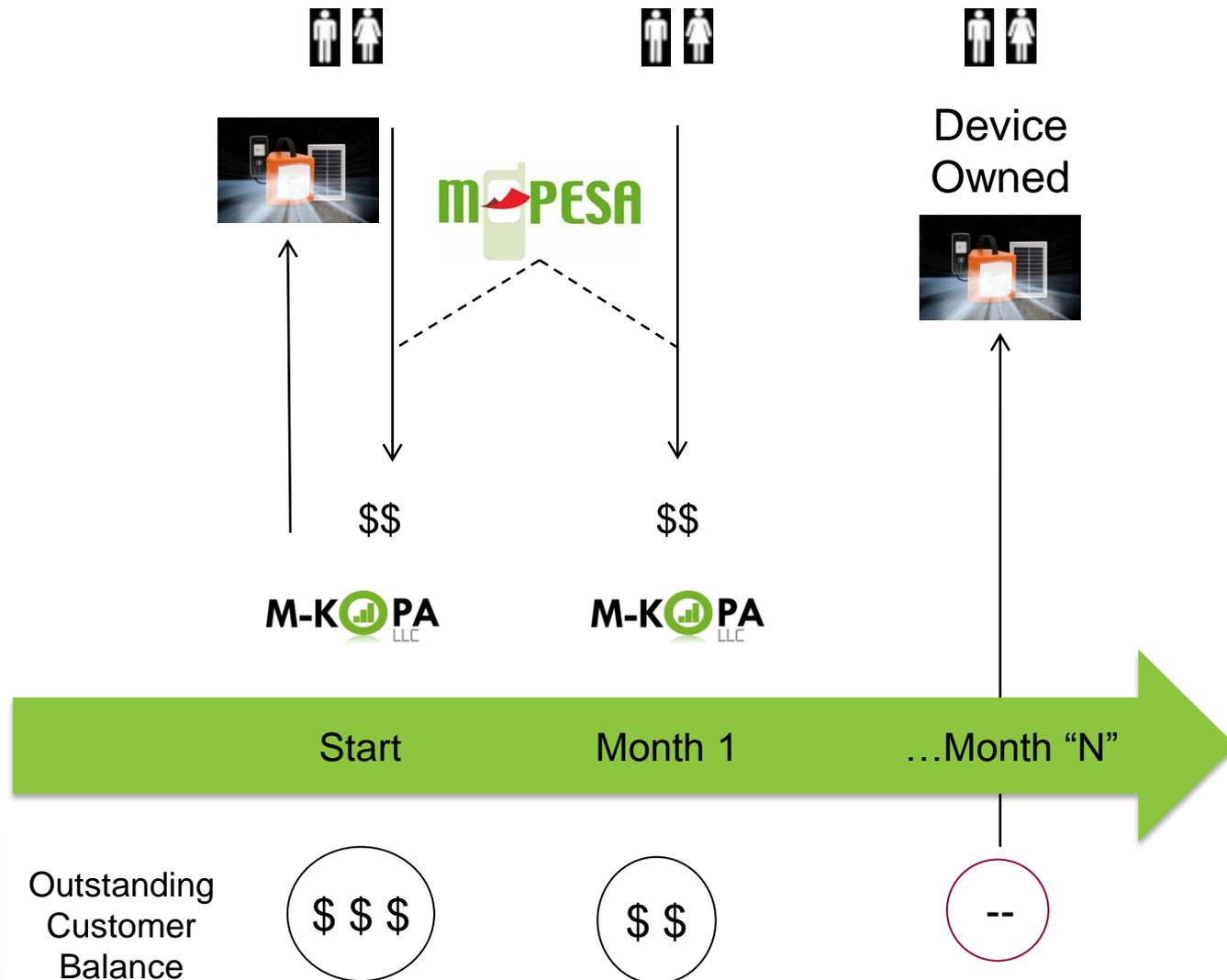
¹Freddie Mac investor presentation. Data of as of 12/31/11.

² US Bureau of Transportation Statistics, 2009.

³ US Census Data, 2010.

M-KOPA Model: “Pay As You Go”

- + d.light S201 retail price of ~ **\$45** is unaffordable for those without access to credit
- + M-KOPA allows consumers to make a small upfront payment, followed by incremental payments over 4 – 9 months
 - + M-PESA service used for payments
- + Innovative technology allows M-KOPA to monitor and regulate device usage based on customer payments



Large Untapped Market to Replicate Successful Models

Technology

- + Short Message Service
- + Global Systems Mobile
- + Mgmt. Info. System



Partners

- + Incubators / advisors
- + Product development
- + Retail distribution agents

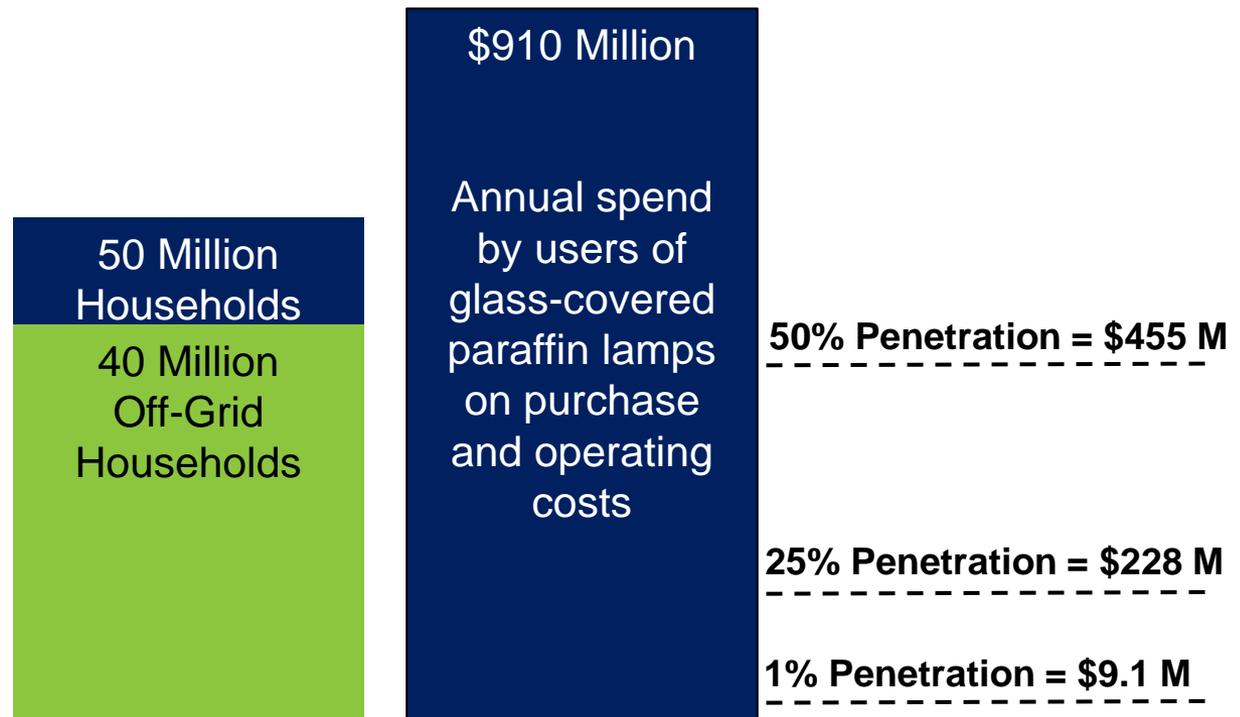


Financing

- + Grant
- + Investment
- + Financial Guarantee

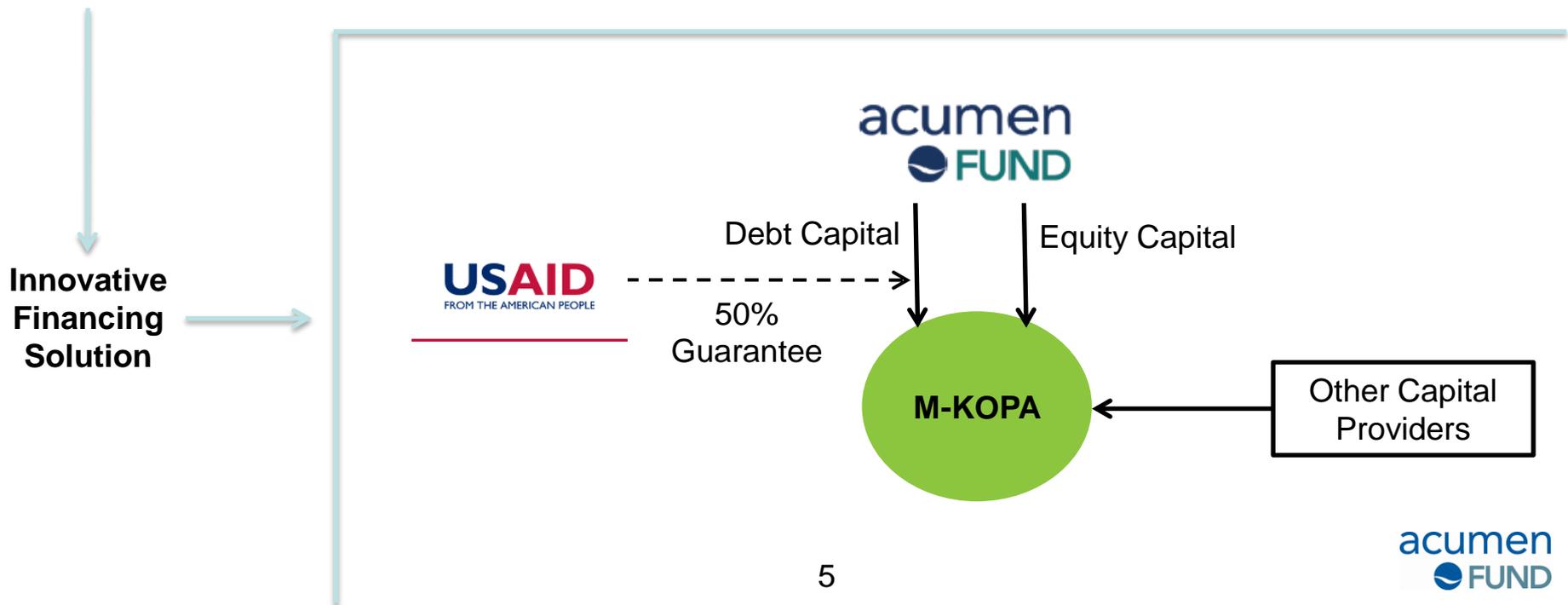
+ IFC “Lighting Africa” Report

- Market study of Kenya, Ghana, Tanzania, Ethiopia and Zambia



Unique Partnership for Innovative Capital Structure

- + Local commercial lenders are not willing / capable to provide funding at interest rates that are economically viable for early-stage enterprises
- + Multiple forms of capital have been utilized in the M-KOPA transaction
 - Seed-stage / Grant
 - Investment (equity and loan)
 - Financial Guarantee



Lessons Learned

- + Proving a successful model in this market has significant implications for increased penetration of clean-energy products**
- + A developed and united ecosystem of technology and financing partners is required to replicate this model**
- + Two significant development opportunities**
 - Access to clean-energy
 - Access to consumer finance