

20 April 2016

OFF-GRID SOLAR MARKET TRENDS

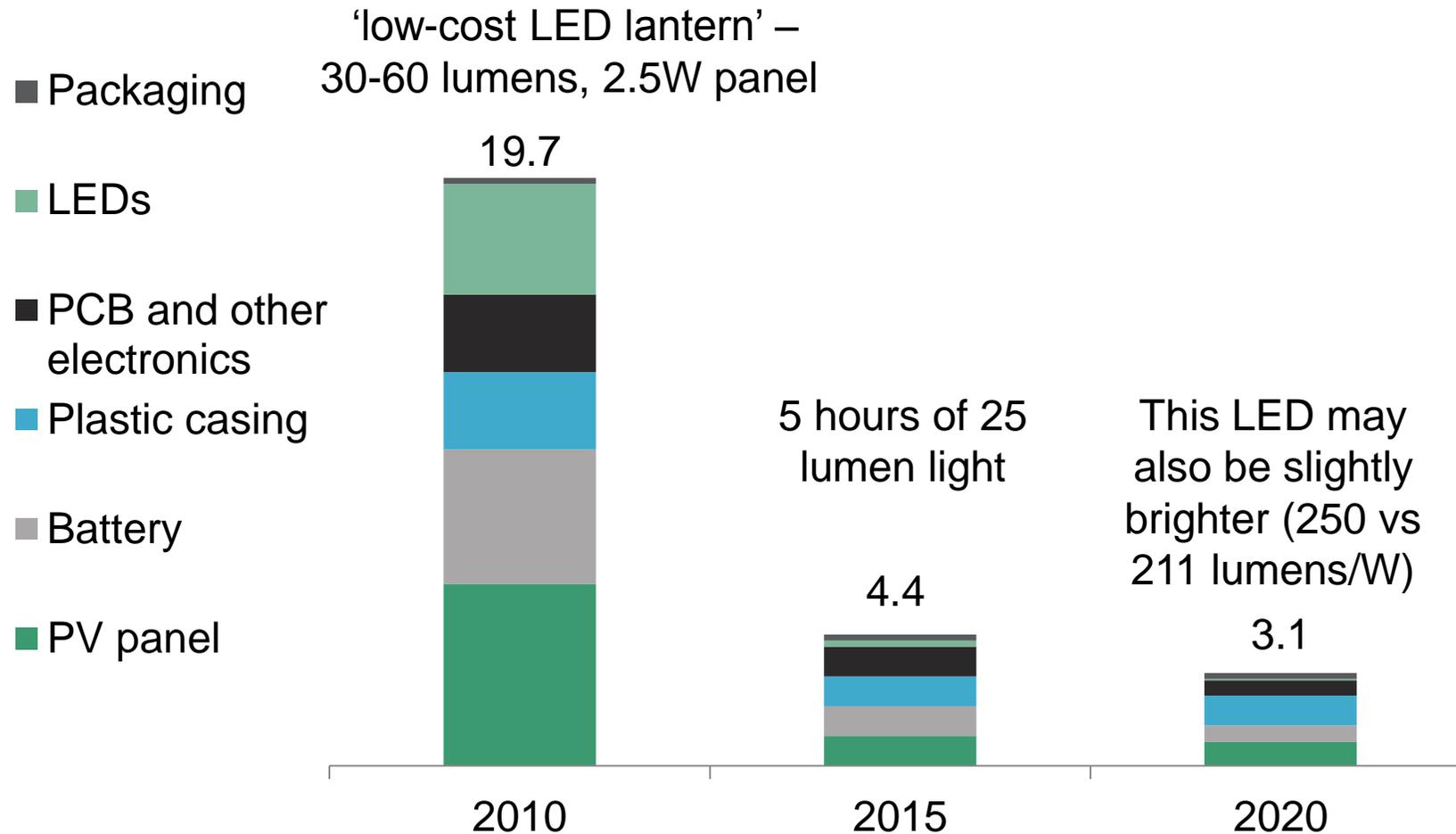
Clean Energy Solutions Center
webinar

Itamar Orlandi

Bloomberg
NEW ENERGY FINANCE

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PICO-SOLAR LANTERN COST DEVELOPMENT (\$ PER UNIT)



Source: Bloomberg New Energy Finance, company interviews, [Lighting Africa 2010 report](#), [EERE Solid-State Lighting Program](#)

Micro- and minigrids

Scope for today



Solar home systems

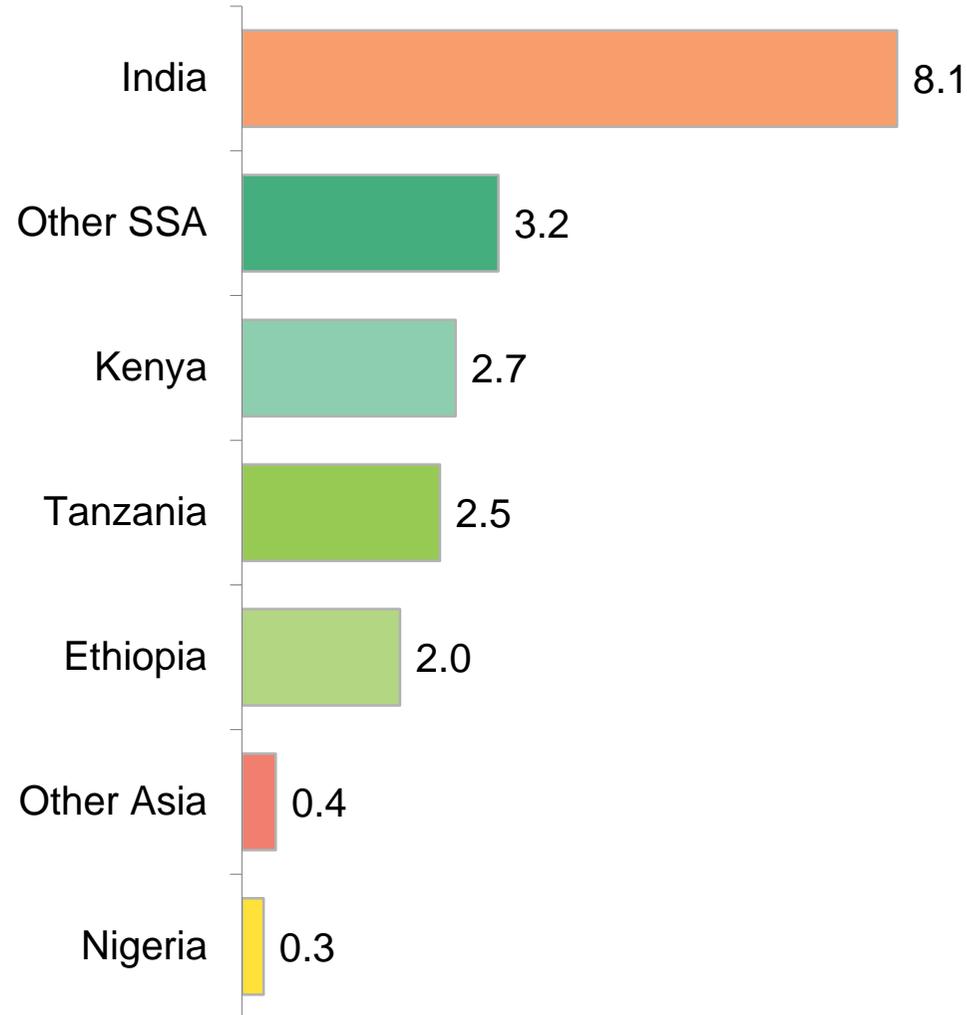
Portable lights



From left to right: Renewit Solar Homework Light, Mobisol Family SHS 19" TV, hybrid mini-grid in Malaysia

Photo source: Lighting Global, German Wikipedia

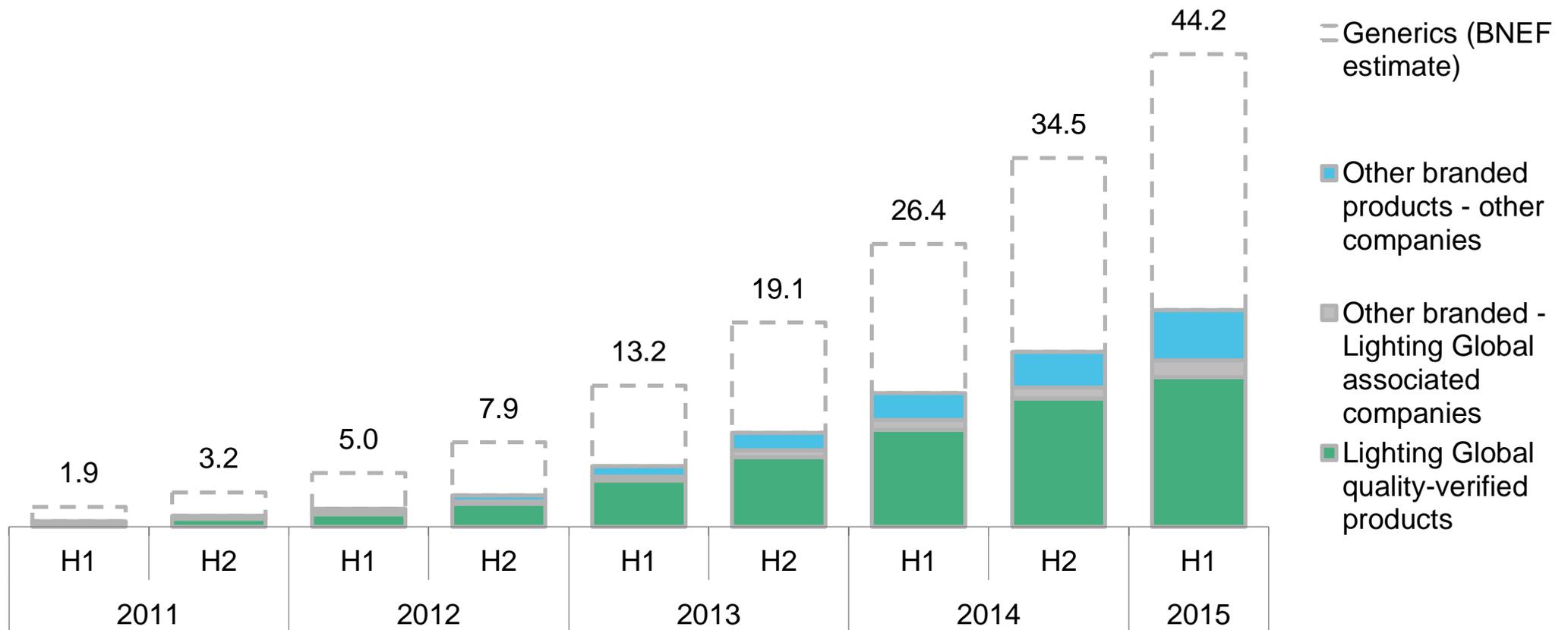
ESTIMATED NUMBER OF HOUSEHOLDS USING PICO-PV (MILLIONS, JUNE 2015)



Note: assumes 10% repeat sales, 3% loss, repurchase after 3 years and discounts 80% of unbranded products. Livelihood figures assumes 10% of customers use products for small businesses. Does not include supply chain livelihoods supported. Data for Bangladesh excludes solar products sold under the IDCOL program.
* cumulative emission reductions over the useful life period of Lighting Global quality-verified products only.

Source: Bloomberg New Energy Finance, Lighting Global, GOGLA

ESTIMATED CUMULATIVE SALES OF PICO-SOLAR LIGHTING PRODUCTS IN SUB-SAHARAN AFRICA AND ASIA, 2011 – H1 2015 (MILLIONS OF UNITS)

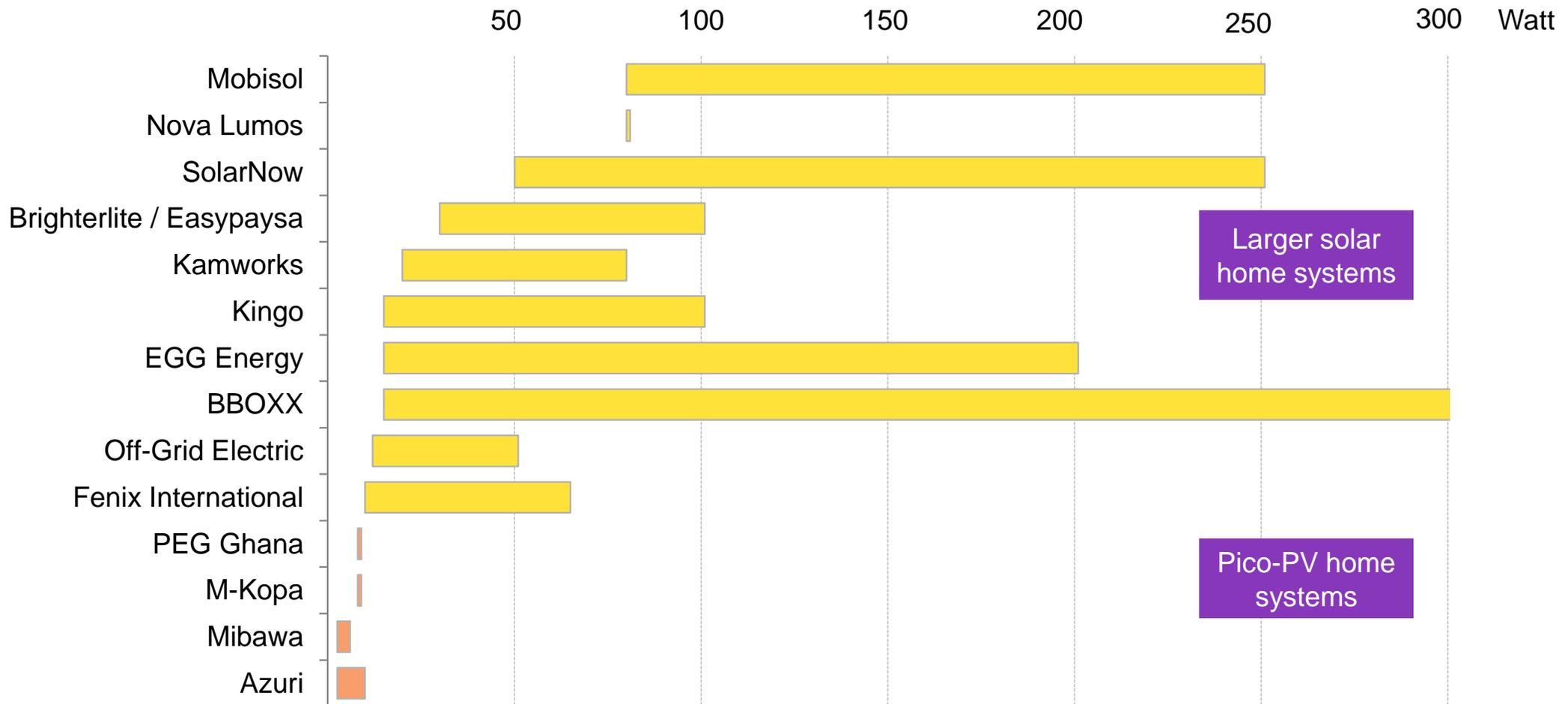


Note: These figures comprise branded and generic solar lanterns and small solar home systems of 10W or less.

Source: Bloomberg New Energy Finance, Lighting Global, GOGLA.

SOLAR PANEL SIZE OF SELECTED PAY-AS-YOU-GO COMPANIES (W)

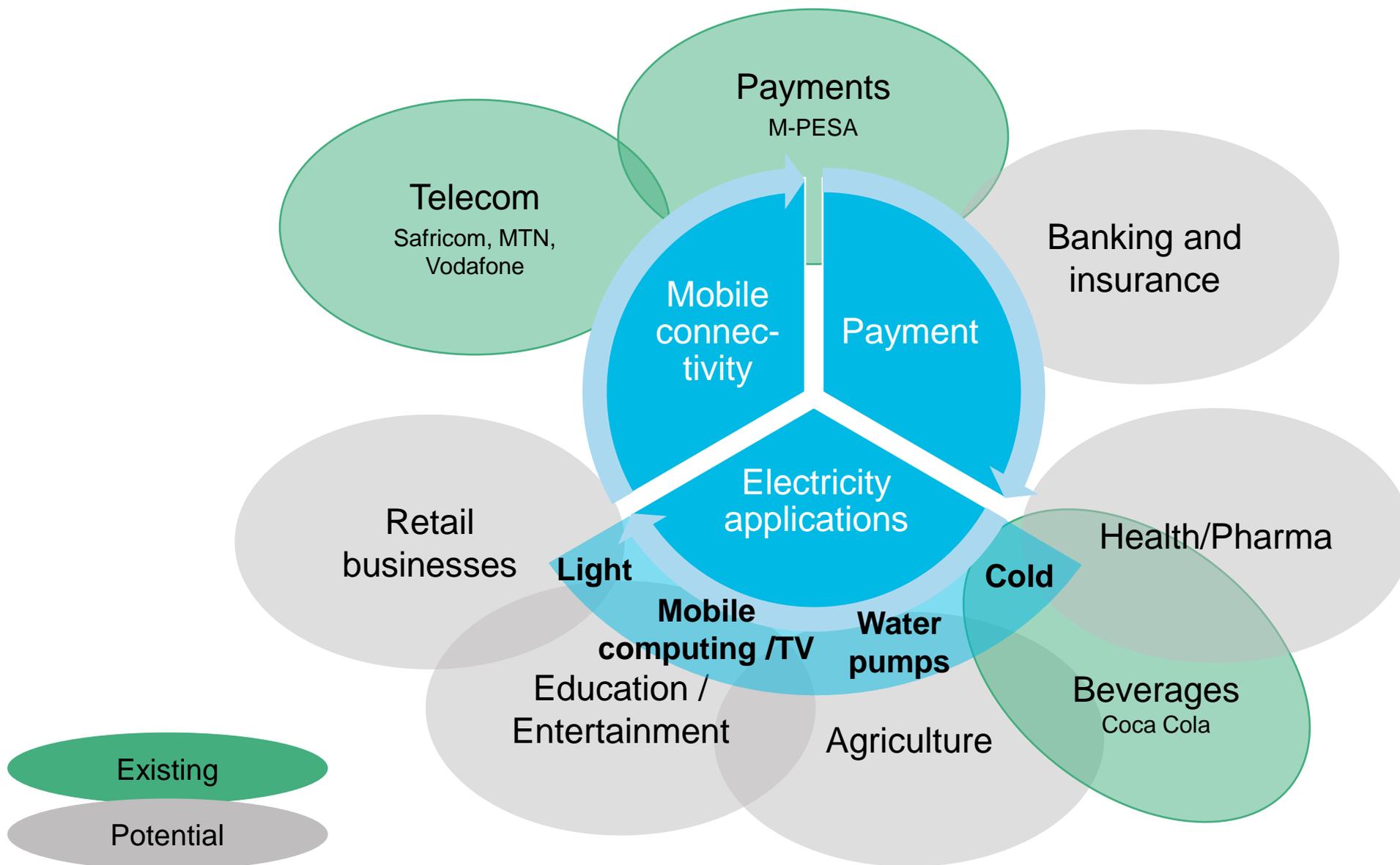
The majority of pay-as-you-go firms offer home systems designed to power more than just a few lights and a phone charger.



Note: Pico-PV is defined as <10W.

Source: Bloomberg New Energy Finance, company websites

EXISTING AND POTENTIAL CROSS-INDUSTRY PARTNERSHIPS



OFF-GRID SOLAR AS RETAIL CHANNEL HEADLINES FROM THE LAST FEW MONTHS

MTN and Fenix partner to offer free Internet enabled phones on purchase of ultra-affordable ReadyPay Solar Power

Source: MTN press release, <http://bit.ly/1PkFF1G>



SOLARKIOSK and SES Techcom Services sign agreement to bring Internet to underserved communities worldwide

Source: Solarkiosk website, <http://bit.ly/1o2qRwa>

M-KOPA Branches Out With Practical Products

Source: M-Kopa website, <http://bit.ly/1Q8DJwL>



MOBISOL TESTS SOLAR POWERED DRONE DELIVERY NETWORK

Source: Mobisol website, <http://bit.ly/20XczdW>

Source: Company websites

UBIQUITOUS PRODUCT MARKET

- High value, premium branding/products
- Modular products or bundled offerings
- Counterfeit enforcement
- Minimum quality and service standards

RELATIONSHIP MARKET



Source: Bloomberg New Energy Finance

MARKETS

Renewable Energy
Energy Smart Technologies
Advanced Transport
Gas
Carbon and RECs

SERVICES

Americas Service
Asia Pacific Service
EMEA Service
Applied Research
Events and Workshops

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driving change in the energy system

sales.bnef@bloomberg.net

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