



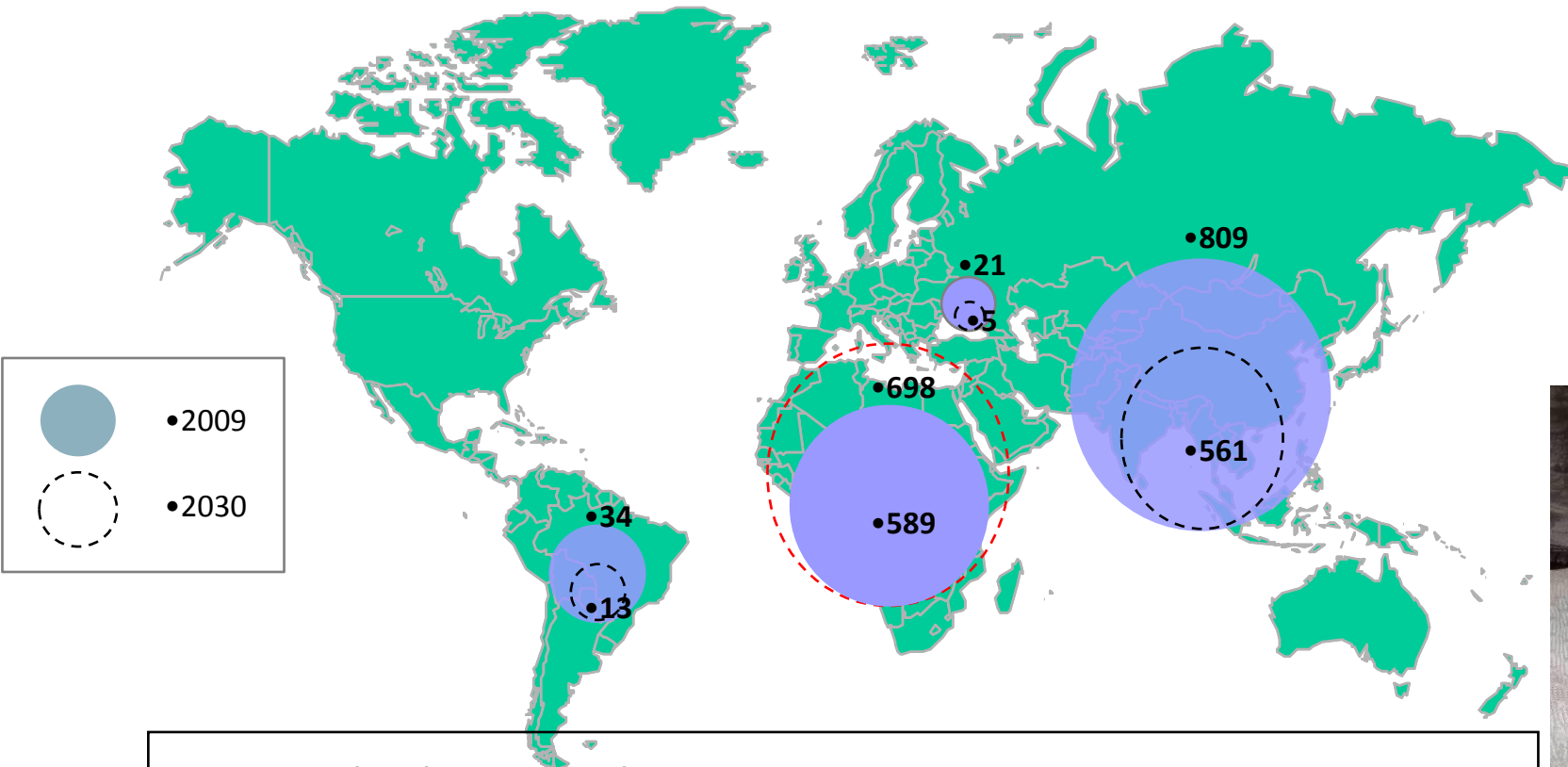
**International
Finance Corporation**
World Bank Group

Lighting Africa

**SREP Pilot Country Meetings
Nairobi, Kenya
March 5-7, 2012**

Over the next 20 years, Africa will surpass Asia to become the largest un-electrified market in the world

•Un-electrified population, millions



•With Africa's un-electrified projected to grow to 700 million, gains made in other regions will be largely negated.

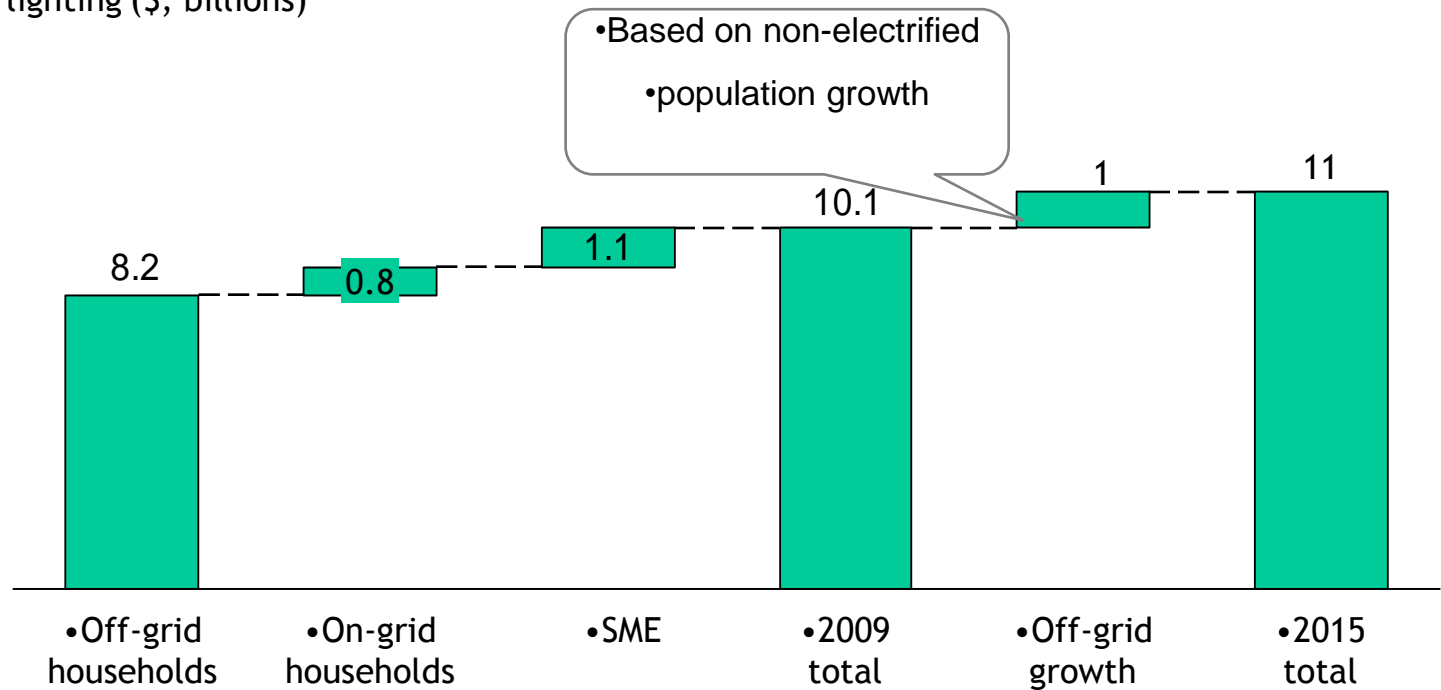
Private sector engagement

Clean/RE adoption

Decentralization

African BOP households and small businesses currently spend over \$10 billion on lighting annually - growing to over \$11bn

•Total annual spend on lighting (\$, billions)



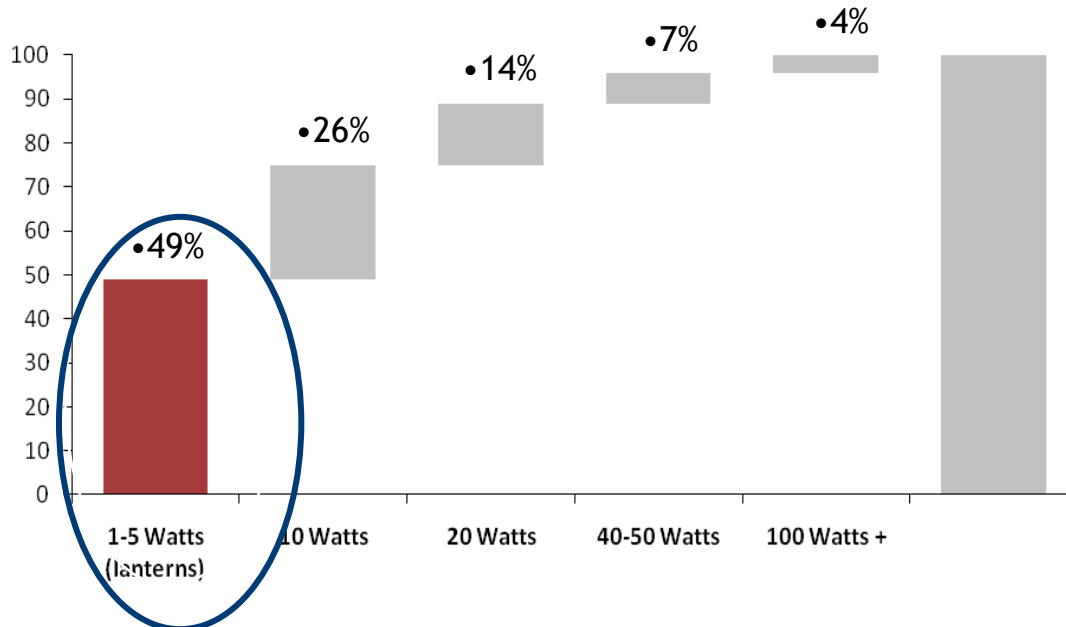
•Average rural HH spends \$.30 per day on kerosene for lighting in Kenya

•Note: this is a bottom-up view based on lighting spending research in 9 geographies and gov't statistics; triangulated with official and IEA kerosene consumption data. The data includes an estimate of all recurring lighting spend including kerosene, candles, wood/charcoal, battery powered devices and other.

•Source: Survey data, government statistics, IEA data; dalberg country-level model and analysis.

While the resulting solar lanterns market will be large, a significant portion of the market will be for larger panel solar lighting products

•Segmentation of potential market for solar lighting devices



•1-5W solar lanterns account for about 50% of the potential off-grid solar system lighting market based on the expense of larger solar systems

•Price range from **USD 25 to \$100**

•Source: GTZ, SEF, Newenhouit surveys across Kenya, Tanzania, Rwanda, Ethiopia, and Uganda. (1) Average market segmentation projections based on purchasing ability and on-the-ground expert assessment.

But there are significant barriers in the lighting market



- “BoP”/ rural markets perceived as complex and difficult
- Little information on end-user needs
- Under-developed supply chains
- Large variation in product quality
- Few business models that deliver the “right product” at “right price”

Lighting Africa Objectives

Short term: Mobilizing the private sector to provide **affordable, renewable, clean lighting** to 2.5 million people in Africa.

Long term: **Establishing a commercial platform** to realize the vision of supplying 250 million people with off-grid lighting products by 2030.

Lighting Africa works along the entire supply chain to address challenges...

Manufacturers
or developers

- **Standards**
- Information asymmetry
- Access to Finance
- High first mover costs (consumer education)
- Regulatory

Importers
or
Distributors

- Business models
- Lack of skills
- Access to Finance
- Information asymmetry
- Market spoilage

Retailers

Consumers

- New technology
- High upfront costs
- **Quality definition**
- Market spoilage

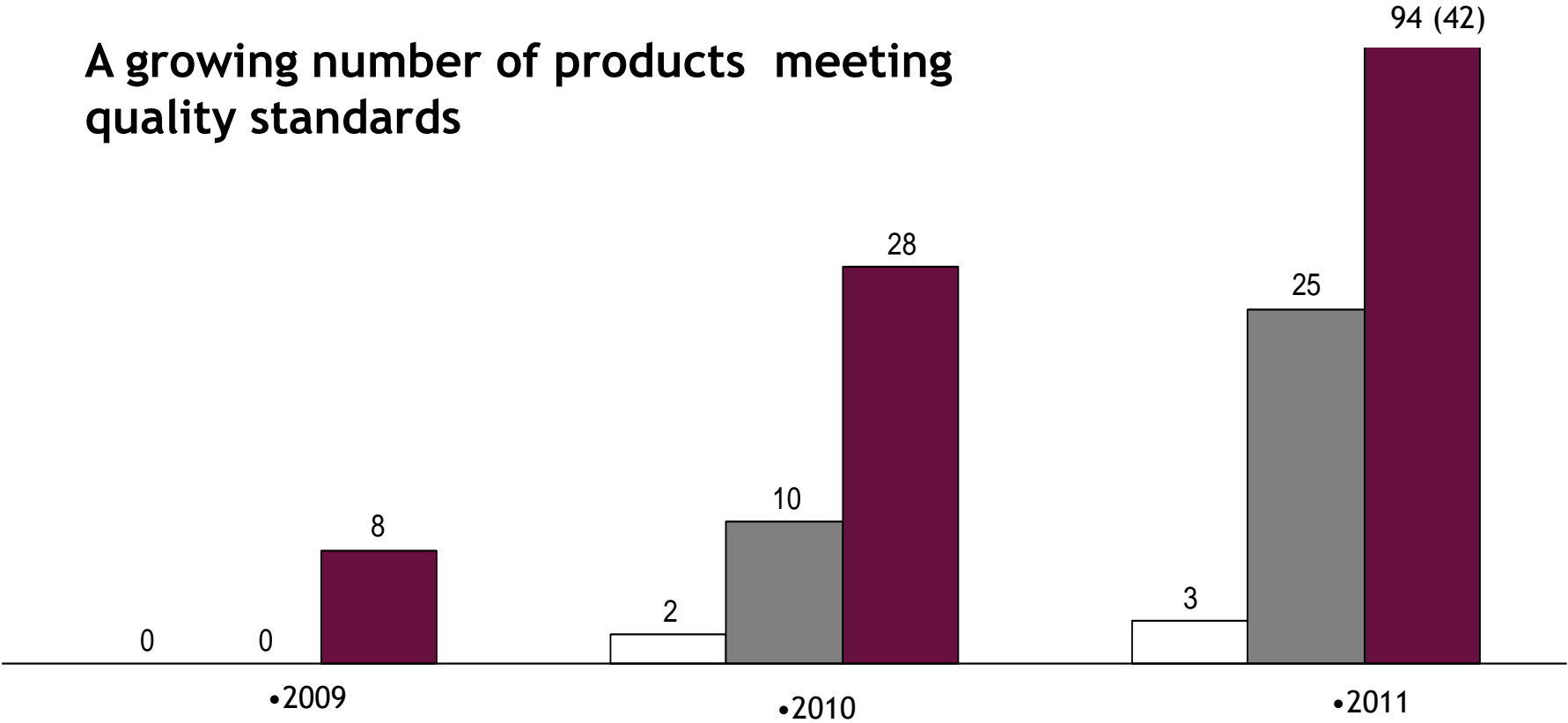
High risk perception from Financial institutions

Developing standards to instill confidence in the market...

•Cumulative number of products approved via LA performance standard¹

- Approved US\$ 25
- Products that have passed QA tests
- Total tested

A growing number of products meeting quality standards



Results to date: Market development activities have an impact...solar portable lights have been accepted by BOP resulting in good growth in the last 2 years....

2.5m	Energy Access	<ul style="list-style-type: none">Number of people in Africa with access to better Lighting from using solar lanterns
502,000	Energy Access	<ul style="list-style-type: none">Number of quality solar lanterns sold by manufacturers in Africa that have passed LA min quality standards
113%	Growth rates	<ul style="list-style-type: none">July – Dec 2011 growth rates over Jan – June 2011 in Africa
14	Growing Acceptance	<ul style="list-style-type: none">Number of countries in Africa that manufacturers have established importers/distributors .
25	Quality products	<ul style="list-style-type: none">Number of quality products that have passed LA standards available in the market in Africa
0.4%	Coverage in Africa	<ul style="list-style-type: none">% number of off-grid consumers in Africa using solar lanterns (in 2 years)
16m	Media reach	<ul style="list-style-type: none">Number of consumers reached with education campaign in Kenya & Ghana



...impressive growth prospects

- **Supply chain / Consumers have increased access to loans:** microfinance institutions in Kenya and in Ghana are providing finance to consumers in rural areas.
- **Market is at a take-off stage:** sales of quality solar lanterns in FY 11 grew by 450% in Africa over FY 10 and 113% in the last 6 months
- **Building capacity in Africa:** since the opening of a testing lab at the University of Nairobi, Kenya

Sales of solar lanterns in Africa over a 2 yr period

