



*The experts of clean energy markets*

# Off-grid Power Forum Intersolar 2015

## Off-grid solutions in the booming African Telecom market

Fabrice POULIN, Managing Director



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# ABOUT INFINERGIA

## ○ What we do:

- **We're a boutique market research and consulting company**
- **Focused on Clean Energy Technologies marketing in B2B domain**

## ○ What we provide:

- **Market research** (custom & off-the-shelf reports)
- **Business development & product marketing.**
- **Strategy consulting**

## ○ Technologies studied:

- **Clean Energy:** photovoltaics & solar thermal, storage, fuel cells, etc.
- **Electronics:** component & system integration including communications

## ○ Markets studied:

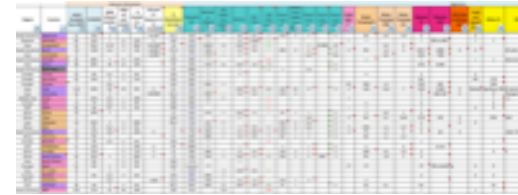
- **Off-grid applications:** domestic, communities, micro/mini-grid, industrial
- **Grid connected:** focused on innovations mainly.



# OUR OFF-GRID MARKET RESEARCH & SERVICES

## ○ Database:

- Cumulative off-grid PV installations over 102 country and per segment
- Industry actors list



## ○ Models:

- Off-grid PV country dynamics model: 102 countries profiled on 15 macro-economical parameters

## ○ Reports:

- Market Analysis of African off-grid applications (2015)
- Market Analysis on African off-grid telecom (2015)

## ○ Newsletter

- Industry news and Tenders sent on a weekly basis since 2 years.



# NUMBERS AND POWER IN MOBILE TELECOM...

## ○ Mobile Telecom around the world:

- >5 Million\* Base Station sites installed worldwide today
- 50% installed in developing countries: Asia, Africa (#2), South America
- **Africa:** 54 countries, 1.1 Billion\* inhabitants (2013), 880 Million\* unique mobile subscribers (Q3/2014).

## ○ A Telecom Base Station is an infrastructure powered by:

- Main grid (sometimes redundant)
- Diesel Generator (DG) Set or “Genset” ☹️
- Hybrid Genset (Genset + Battery Bank (BB)) (new!)
- **Hybrid Solar (Genset + Solar ☺️)**
- **Solar + Battery Bank ☺️**
- To a lesser degree: Wind Generator and Fuel Cells (backup)

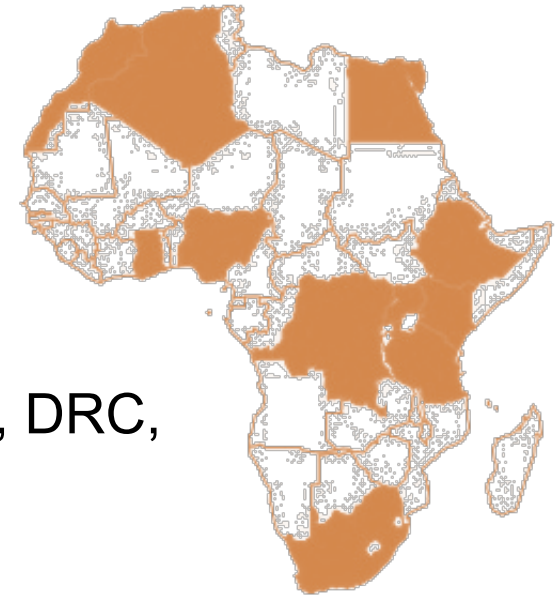


Sources: ABI Research, World Bank & Ericsson



# AFRICAN OFF-GRID TELECOM MARKET: TOP VIEW

- 11 countries represent a significant share of African Telecom:
  - 700 million of inhabitants (63% Africa)
  - 530 million of subscribers (60% Africa)
- These 11 countries are:
  - Northern Africa (Morocco, Algeria & Egypt)
  - Sub-Saharan Africa (Ghana, Nigeria, Ethiopia, DRC, Kenya, Tanzania, Uganda, & South Africa)
- We found out that **they represent 56% of off-grid solar telecom sites** and 25% of African off-grid telecom sites.

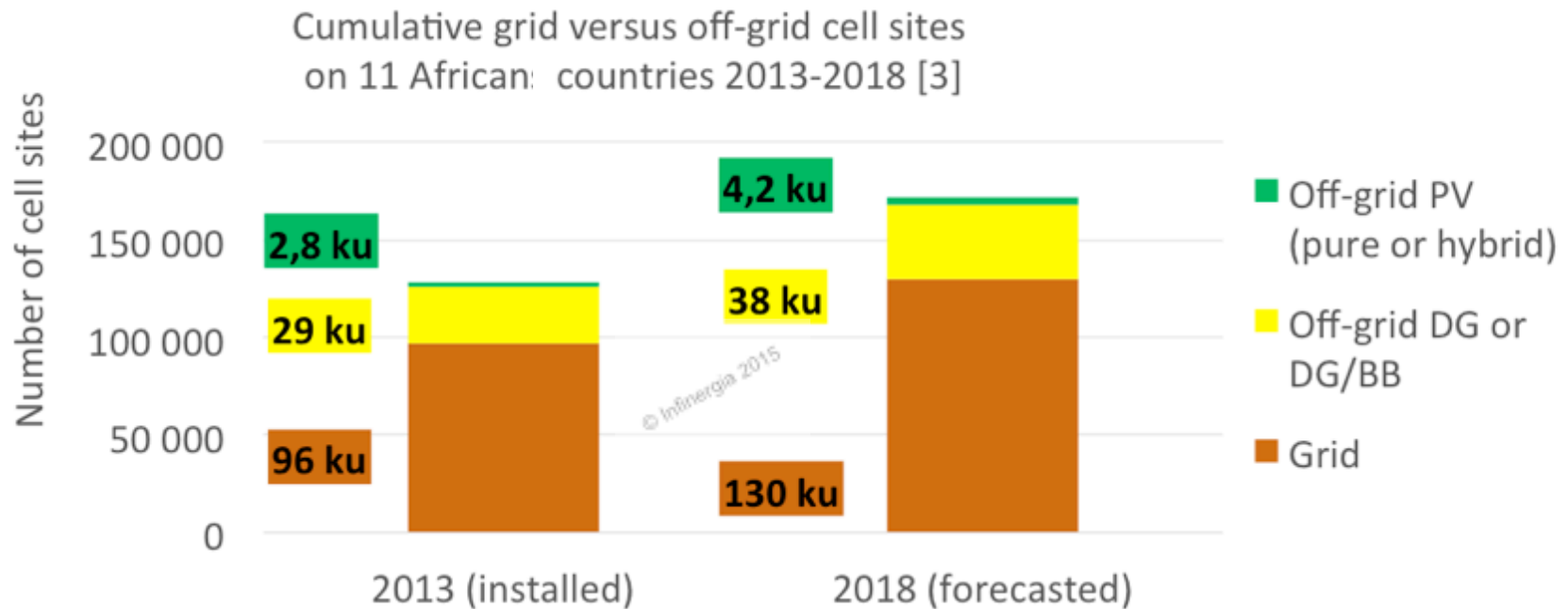


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# AFRICAN OFF-GRID TELECOM MARKET: NUMBERS!

- Telecom infrastructure on these countries shall rise from 128 000 sites to 172 000 sites by 2018.

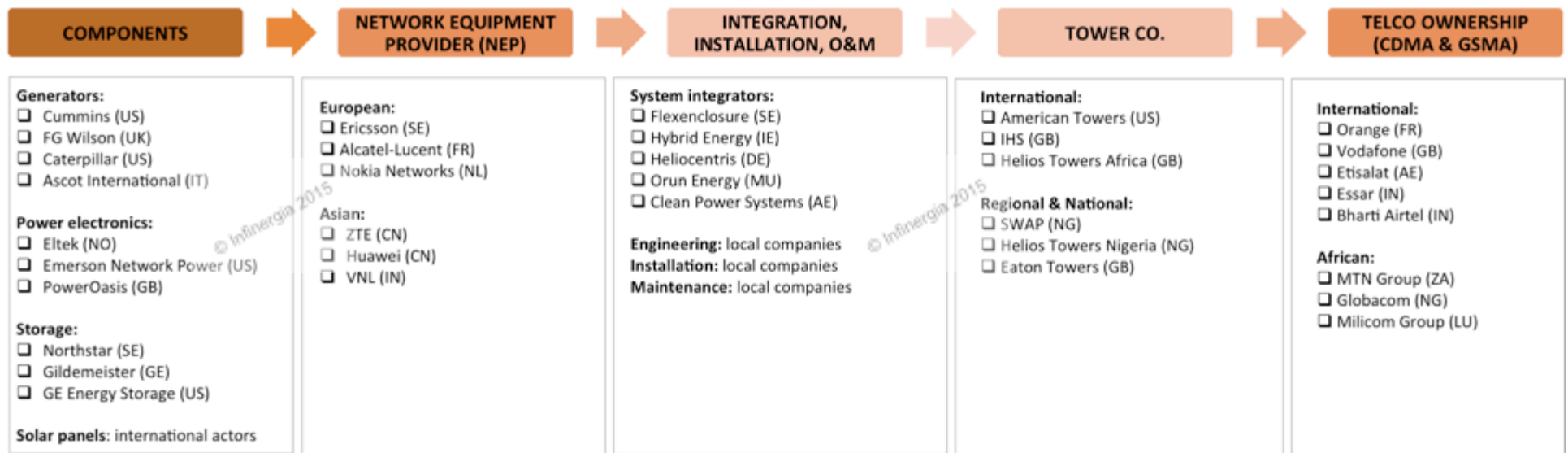


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# AFRICAN OFF-GRID TELECOM MARKET: ACTORS

- Multiple actors and complex market structure...



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# AFRICAN OFF-GRID TELECOM MARKET: CONCLUSION

- Devil is in the details!
- Bad Grid is a real issue and extends the off-grid market!
- It's again about money! (CAPEX vs. OPEX and ROI!)
  
- Learn more on it via our report on African Off-Grid Telecom:
  - Country selection on macro-economical and micro analysis
  - Desk research upon 50 active players in 11 countries
  - Over 20 interviews within local telecom actors: operators, tower companies, installers, network equipment vendors, etc.
  - To be released in H2/2015...





# THANK YOU FOR YOUR ATTENTION!



**INFINERGIA CONSULTING:** 17 Rue de la Frise 38 000 Grenoble - France  
Phone: +334 76 96 00 68 - E-mail: [offgrid@infinergia.com](mailto:offgrid@infinergia.com)

