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SUSTAINABLE ENERGY FOR ALL
AFRICA HUB

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Energy Access "Movers and Shakers" Showcase: State of Play and Potential for Scale in sub-Saharan Africa

The United Nations Foundation's Energy Access Practitioner Network – 25 October 2016

Webinar

Outline of presentation

1. Overview of the SE4All Africa Hub and SE4All country action in Africa

2. The GMG Market Development Program – status and concept note of Phase 2

3. Brief presentation of the New Deal on Energy for Africa

The SE4All Africa Hub

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Set-up

- Hosted by the African Development Bank in partnership with the African Union Commission, the NEPAD Agency, UNDP and a rotating representation of the Regional Economic Communities. SADC Secretariat joined the Oversight Committee at the beginning of the year.

Mission

- Coordinate and facilitate SE4ALL implementation in Africa (CEMA Nov. 2012)

Operating Principles

- African ownership
- “Light” structure
- Results orientation

Africa Hub Activities

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- **Policy and Guidance**
  Designing the SE4All country action process, mainstreaming a coordinated approach, providing a template and guidelines for the SE4All Action Agenda and Investment Prospectus, for the consultative processes and promoting quality control.

- **Technical Assistance**
  The Hub provides technical assistance to African countries and energy stakeholders to achieve SE4All objectives related to energy access, energy efficiency and renewable energy sources. The Technical Assistance is mainly delivered through the GEF-funded African Climate Technology Center project.

- **Knowledge Management**
  The Hub collects information on the implementation of the SE4All initiative in Africa and make it available on its website: www.se4all-Africa.org

- **Workshops & Events**
  Organizes amongst other events the annual SE4All Africa workshop to assess progress in the implementation of the SE4All in Africa.

SE4All and SDG No. 7

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February 2011

The United Nations General Assembly designated the year 2012 as **the International Year of Sustainable Energy for All**

September 2011

UN Secretary-General Ban Ki-moon launched **Sustainable Energy for All** as a global initiative.

December 2012

The UN General Assembly unanimously declared the decade 2014-2024 as the **Decade of Sustainable Energy for All**

September 2015

UN Member States adopted the **Sustainable Development Goals (SDG)** and post-2015 agenda.

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
7.2 By 2030, increase <u>substantially</u> the share of renewable energy in the global energy mix
7.3 By 2030, double the global rate of improvement in energy efficiency

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The AA – a Holistic Approach

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National SE4All Action Agenda

Inclusive development

- Government (inter-ministerial)
- Development partners
- Private sector
- Civil society
- Energy Producers
- Energy Consumers
- Other Energy Stakeholders

Holistic long-term vision & Sector wide coherence

Energy Access

Renewable Energy

Nexus angles

(Health, Women, Water, Food, Agriculture, etc.)

Energy Efficiency

- Defining national2030 objectives
- Outlining actions required to achieve objectives
- Providing a coordination platform for partners
- Providing confidence to potential investors
- Defining tracking and monitoring
- Establishing implementation structure

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The AA – an Implementation Tool for SDG 7

"Encourage that the SE4All Action Agenda be formally recognized as an implementation tool for proposed SDG7 at national level", *SE4All Energy Access Committee, May 2015*

"National AA and IP present a robust framework for accelerating the implementation of energy related goals and targets of the country", *SE4All Advisory Board, May 2015*

"We welcome […] the development of Action Agendas and Investment Prospectuses at country level", *Financing for Development Outcome Document, July 2015*

"Support the ongoing and future African voluntary country-led processes to develop SE4All Action Agendas with appropriate goals as an umbrella framework for energy sector development at the national level.", *G20 Action Plan on Energy Access in SSA, October 2015*

"We welcome the development of SE4All Action Agendas as umbrella energy sector development documents looking at access, renewables and energy efficiency in a holistic manner", *SAIREC declaration, October 2015*

"To promote continuous partner coordination through the SE4All Action Agenda process at country level and to formally establish the AA as a framework for SDG7 implementation at national level", *SE4All Africa workshop, February 2016*

SE4All Country Action: Where do we stand in Africa ?

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Key steps for achieving SE4All objectives

Partnership Declaration (“opt-in”) → Rapid Assessment → Action Agenda → Investment Prospectus(es) → Implementation → Monitoring & Reporting

44 African countries joined the SE4All Initiative

RAGA developed in 38 African countries

AA – 20 Finalized and 9 Under Development

IP – 4 Finalized and 22 Under Development

Coordinate follow-up to assure the delivery of SE4All country actions in Africa

Where do we stand in Africa?

Countries developing AAs – October2016

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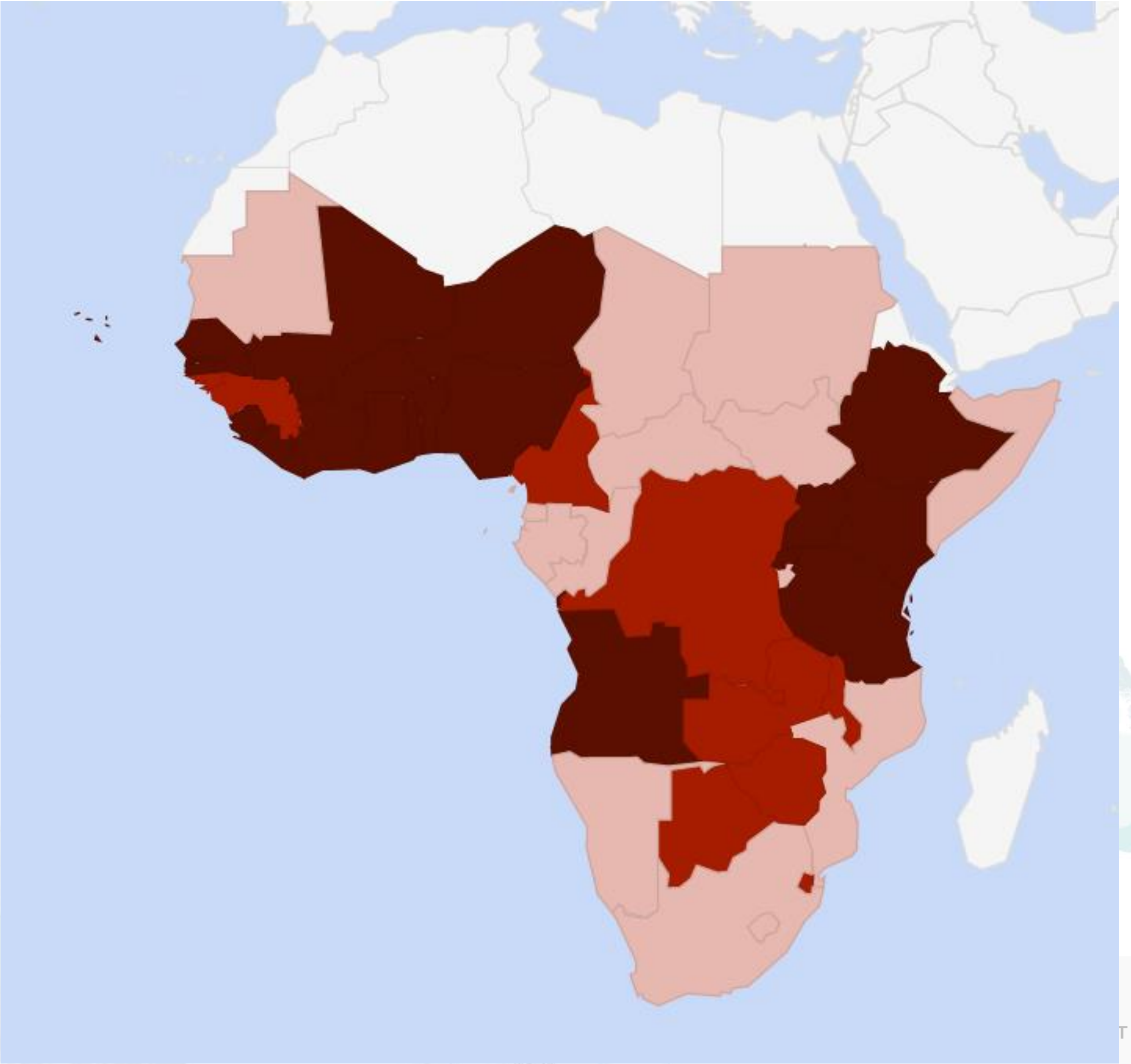
SE4All Action Agendas are finalised in 20 African Countries and in development in 9



- AA process finalized/well advanced
- AA process starting/ongoing
- SE4ALL Partner country

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Where do we stand in Africa?

Countries developing IPs – October 2016

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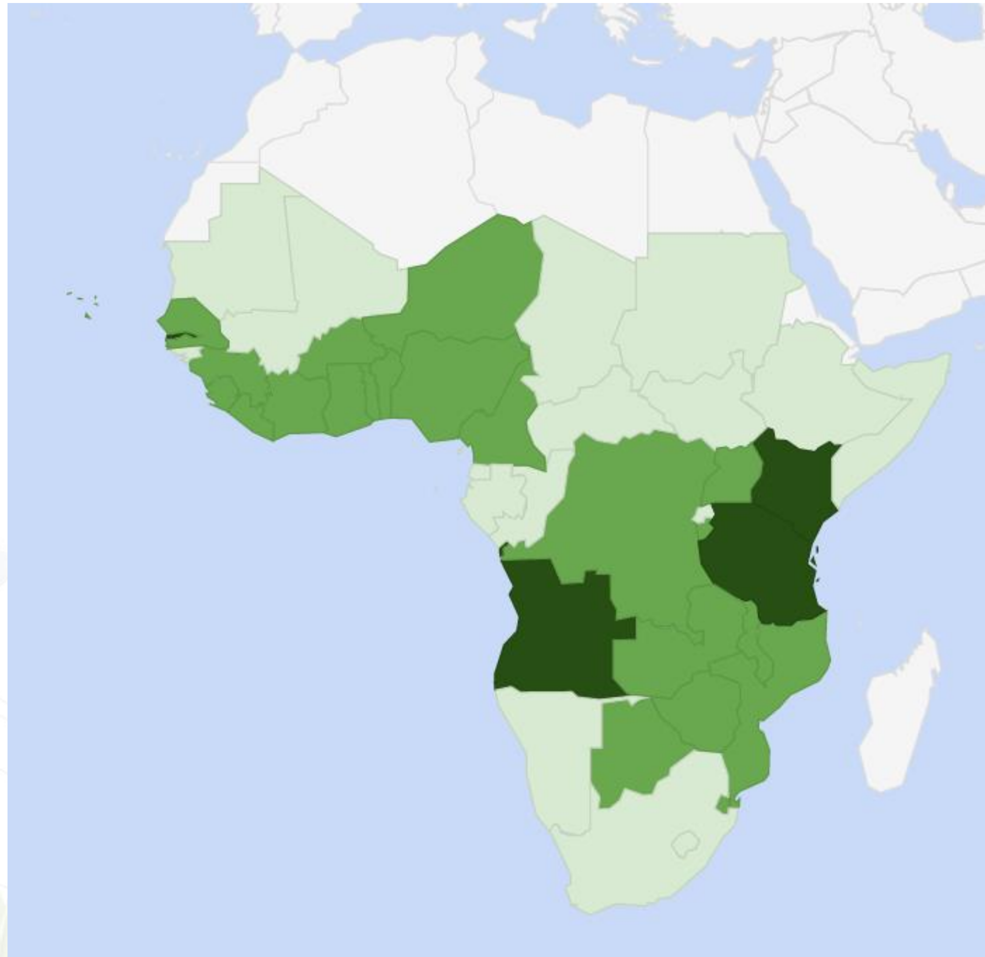
SE4All Investment Prospectuses are finalized in four and under development in 20 countries



IP process finalized

IP process starting/ongoing

SE4ALL Partner country

Examples of AA targets

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Kenya	2012	OBJ 2030
Access to Electricity	23%	100%
Access to Clean Cooking	16%	100%
Renewable Electricity Generation	75%	80%

Rwanda	2014	OBJ 2030
Access to Electricity	22%	100%
Access to Clean Cooking	2%	100%
Renewable Electricity Generation	43%	44%

Uganda	2014	OBJ 2030
Access to Electricity	26%	>98%
Access to Clean Cooking	2.6%	>99%
Renewable Electricity Generation	65.3%	>90%

All available Country Data can be seen at http://www.se4all-africa.org/

Sample Priority Actions in the AAs

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Mini-Grids

Enabling Environment

- Introduce measures to attract private investors;
- Adoption of quality standards;
- Development of comprehensive mini-grid policy and regulations (tariffs, licences, future grid connection options);
- Establishment of rural electrification agencies.

Supply Side

- Capacity-building for project developers;
- Promotion of mini-grids around anchor clients (telecoms, agro businesses etc.);
- Direct establishment of mini-grids by national utilities;
- Hybridization of existing diesel mini-grids with renewable technologies.

Demand side

- Promotion of productive and income-generating uses of electricity in rural areas.

Sample Priority Actions in the AAs

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Clean Cooking

Enabling Environment

- Promote industry standards, labelling and testing facilities;
- Foster the enabling environment on biomass, forestry, charcoal production to assure sustainability of the biofuels value chain;
- Support continuous research on consumer use and demand for efficient stoves and on the design of products that meet user needs.

Supply Side

- Support local manufacturers and suppliers with development, production, marketing and retailing of high performing cook stoves;
- Support to financial service providers to work with modern cooking market actors to increase access to financing for entrepreneurs and end users of cooking solutions.

Demand Side

- Conduct awareness campaigns;
- Develop financing schemes to provide credit to households that cannot afford the upfront costs.

Focus on Implementation of AA/IPs (1)

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1/ **Concerted follow-up to AA/IPs:**

- AA to be recognized as coordination and implementation tool for SDG 7 at national level
- Government to maintain consultation processes focused on medium-term strategic agenda with clear decision-making processes
- Promotion and networking including the facilitation of dedicated SE4All investment fora and matchmaking making use of market places
- Political engagement/awareness raising/lobbying, recommending *inter alia* the engagement with development partners to use the AA/IP as guiding tool
- Mobilization of resources, including the facilitation of access to finance from available resources of partners – linking demand with supply

Focus on Implementation of AA/IPs (2)

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2/ Coordination & Institutionalization

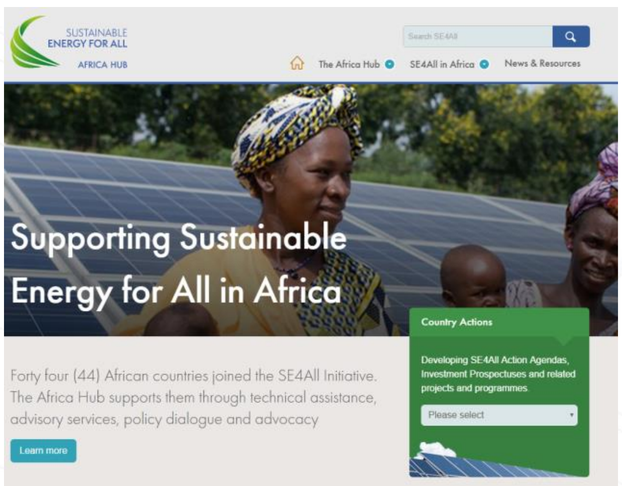
- AA process provides a platform for coordination at country-level and guidance for partner engagement
- Donor discipline to keep new initiatives aligned with agreed priorities, and maintain focus on medium- to long-term strategic goals
- Institutionalising SE4All processes in the countries and strengthening of SE4All Secretariats
- Regional coordination and leadership (e.g. RECs, AELG)

3/ Tracking and Monitoring

- Develop methodologies to track and measure progress towards SE4All targets at country level
- Make the link between monitoring efforts on SE4All at a country level and the Global SE4All monitoring and tracking work (GTF, MTF)

Additional Information

- The Hub launched earlier this year the **SE4All Africa website:** http://www.se4all-africa.org/

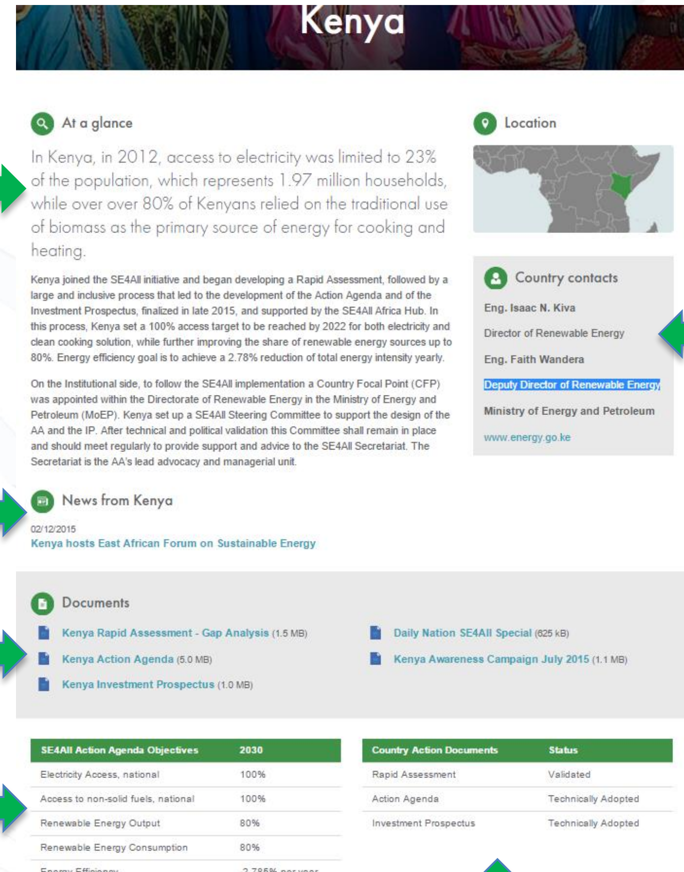


Short description of the context

Country SE4All related news

Documentation to download

SE4All targets



SE4All focal point contact

Validation status

Outline of presentation

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1. Overview of the SE4All Africa Hub and SE4All country action in Africa

2. The GMG Market Development Program – status and concept note of Phase 2

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GMG Market Development Program

- Implemented by the **SE4All Africa Hub** in collaboration with the Bank's **Sustainable Energy Fund for Africa (SEFA)**.
- In the framework of **SEFA Component III**, enabling Environment.
- A mix of **internal staff and advisory services**.
- Designed in 2014/15 through a **consultative process**.
- Reflects the areas of intervention established by the **SE4All High Impact Opportunity (HIO)** on clean energy mini-grids and actively collaborates with some of the HIO partners on its implementation
- **Multi – phased**: to assure greater degree of flexibility to adapt to the changing landscape, closer coordination with partners and gradual take-off in parallel with increasing internal implementation capacity.
- **Phase 1** ending first half 2017, when **Phase 2** is expected to begin

Barriers to GMG development

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The GMG MDP has identified a number of key barriers to development of a GMG sector in Africa, including:

- Gaps in the policy and regulatory framework (perhaps most important, because precursors to investment), specifically:
  - Tariffs
  - Licensing
  - Arrival of the national grid
  - Inconsistency/changing government positions
- Lack of detailed market intelligence by country
- Few proven business models as yet (profitability/sustainability)
- Very limited experience operating/maintaining GMGs
- Households lack purchasing power, while little productive use
- Lack of capacity of key stakeholders, both public and private
- Access to finance, especially debt
- Risk, especially currency risk

GMG MDP Program Design

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Removing or reducing market barriers and strengthening the ecosystem for the scaling-up of GMGs investments in Sub-Saharan Africa

Barriers Identified	Business Lines
1 . Early stage market fragmentation	1. Market Intelligence
2. Lack of proven commercial business models	2. Business Development Support
3. Inadequate regulation, policy gaps or uncertainty	3. Policy and Regulatory Support
4. Human skills, institutional capacity issues and lack of standardization	4. Quality Assurance
5. Lack of access to affordable longer term finance	5. Access to Finance

Status of MDP Phase 1 implementation

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- **Market Intelligence** – Working with consortium made up of Carbon Trust/UNEP/ECREEE. Have analyzed existing market intelligence methodologies and determined information to collect/process/make available to developers. First market study conducted in Mozambique with Ethiopia in progress; Cameroun, Mali and Burkina Faso in the pipeline.
- **Business Development Services** – Working with consortium made up of Energy4Impact/INENSUS. Concluded gap analysis assessing developers' TA needs. GMG toolkit and developer helpdesk website (http://greenminigrid.se4all-africa.org) launched at IOREC.
- **Policy and Regulatory Support** – Conducting inventory of existing GMG policy instruments. Developing GMG Africa strategy, to be endorsed by AU Energy Ministers meeting in late November.
- **Access to Finance** – Working with Innovation, Energie, Développement (IED). Finalizing supply-side scoping of GMG support instruments and demand-side scoping of GMG financing needs.
- **Quality Assurance** – No activities planned under 1st phase of MDP.

Snapshot of GMG Help Desk

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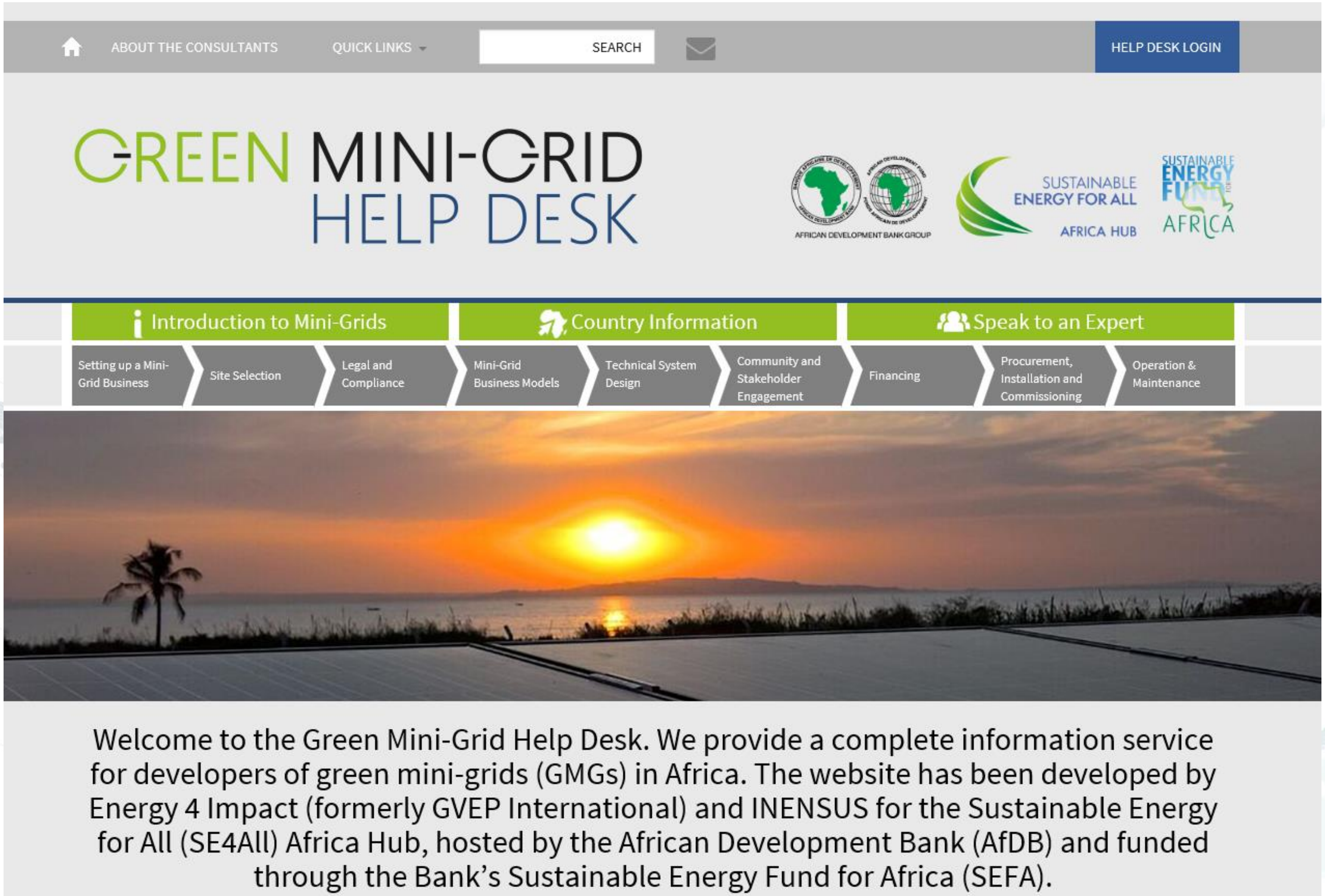

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http://greenminigrid.se4all-africa.org

Lessons Learned to Date

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- Information lacking for conducting robust country-specific market studies, esp. information on hydro and biomass potential, productive use potential and anchor clients
- Policy gaps can be narrowed to simplified licensing, cost-reflective tariffs and main grid arrival, and GMG developers identify policy gaps as the most critical obstacle to GMG development
- All countries reference importance of mini grids in their SE4All Action Agendas, but very few countries have begun developing a GMG policy framework and not many specific policy instrument examples available
- Main grid conservatism continues to push back against GMG initiatives
- Though limited grants are available and equity is growing, commercial debt is virtually non-existent. Developers also express need for RBF to support rural consumer connections
- Many local currencies have lost from between 25 to 50% of their value over the last 30 months, making currency risk a very critical issue

Potential Activities for Phase 2

Market Intelligence:

- Conduct market intelligence studies in ten high impact SE4All/GMG countries (grid extension plans, off-grid areas, policy and regulatory framework, population centers, renewable energy resources, etc.);
- Resource mapping for small hydro and biomass potential, as there are frequently gaps in the currently available information at country level;
- Map productive use and anchor clients in several countries;
- Contribute to the development of rural electrification plans, focusing on geographic markets outside of the main grid future expansion where mini-grids and off-grid will lead;
- Development and regular update of GMG market data permitting stakeholders to follow the GMG sector over time and monitor specific KPIs.

Business Development Services:

- Maintain and expand knowledge products and data available on GMG Developers Help Desk, notably adding more country specific information;
- Ramp up provision of Technical Assistance to GMG developers, both through the Help Desk and through more intensive TA support;
- Stimulate the productive use of electricity and demand-side management through action-research, whereby the Programme provides support in exchange for data sharing;
- Support the emergence of "Training Centers of Excellence in Mini-Grids"

Potential Activities for Phase 2 (cont'd)

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Policy and Regulatory Support:

- Design GMG Policy Helpdesk and populate it with existing policy instruments, knowledge products and tutorials and provision of TA to public sector actors;
- Facilitate implementation of Pan-African GMG Strategy in participating countries;
- Study the feasibility of alternative billing methods (to mitigate tariff debate).

Quality Assurance:

- Introduce Quality Assurance Framework in three countries following Global LEAP implementation guidelines.

Access to Finance:

- Design results-based funding facility in support of GMG rural consumer connections;
- Conduct commercial financiers capacity needs assessment in view of mobilizing local debt facilities, potentially linked to AfDB envisaged credit lines, and develop commercial financiers GMG training programme;
- Study supplier and export credit arrangements with the aim of developing a matchmaking role.

We would appreciate your comments on the Phase 2 concept note…

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- Are these proposed activities appropriate?
- Are there additional appropriate activities that we are omitting?
- What should be the prioritization of activities?
- Do you have other comments or suggestions for the GMG MDP team?
- Feedback on the concept note should reach us by 31 October

Solar mini grid in Mali

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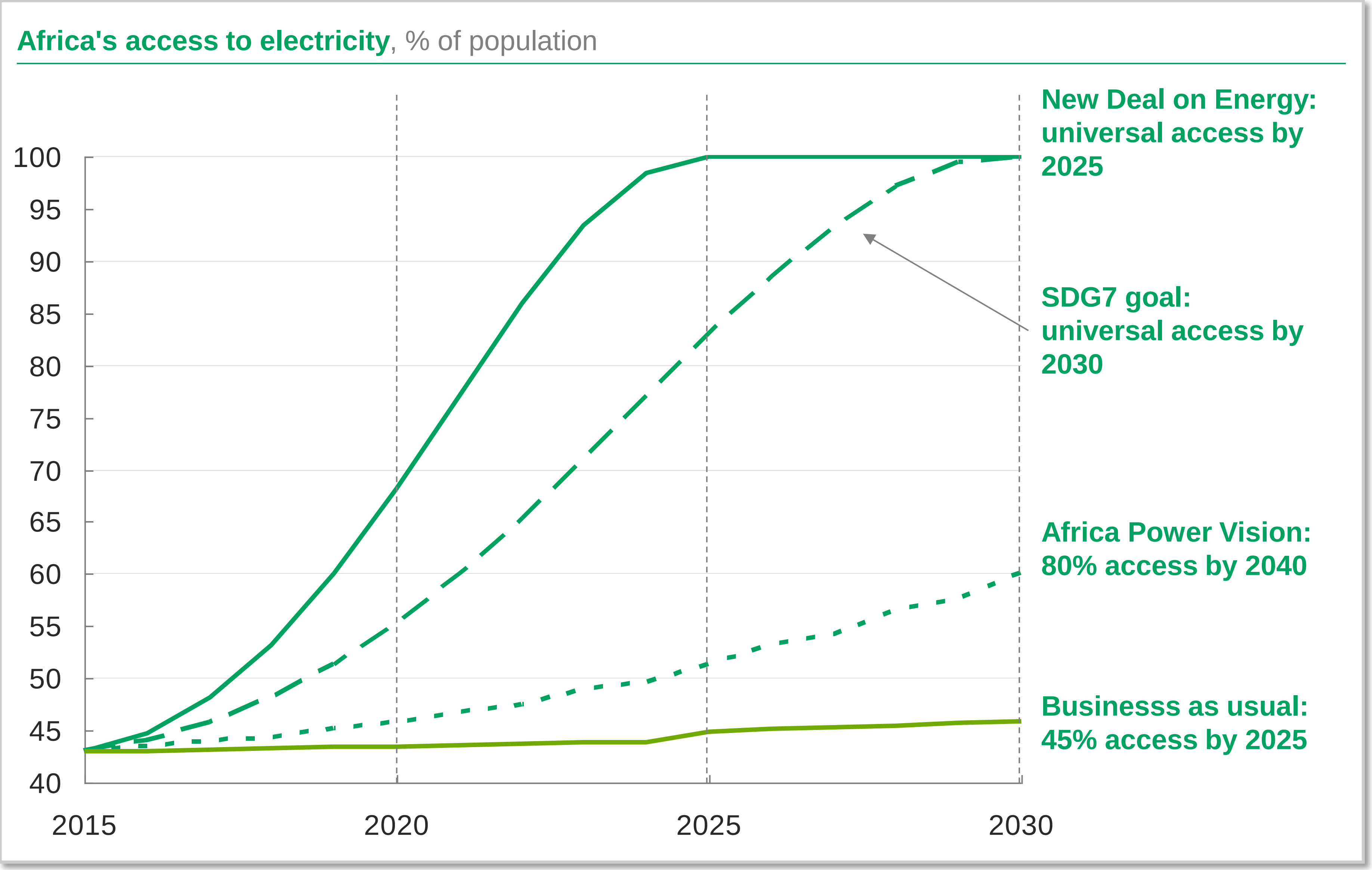
The business as usual scenario is untenable and the New Deal on Energy aspires to achieve universal access by 2025



SOURCE: WEO 2014; Brighter Africa report

Universal access by 2025 means connecting over 200 million households and nearly doubling grid generation capacity

	From current energy situation in Africa		To universal access in 2025	
Population, *M*	1 174	x1.3	1 499	
GDP, *$ bn*	2 175	x1.7	3 742	
Electrification rate, *%*	43%	x2.3	97%	
Households connected, *M*	87	X3.6	292	
Grid	83	x2.6	213	+130 M new on-grid connections
Off-grid	4	x20	79	+75 M new off-grid connections
Grid capacity, *GW*	170	x1.9	332	+160 GW of new capacity
Consumption *kWh/capita*	613	x1.5	941	
Households using clean cooking, *M*	70	X3.1	220	+150 M with clean cooking solutions

1 Assuming 100% urban electrification and 95% rural electrification

2 Out of 234m households in 2015 and 300m households in 2025

SOURCE: WEO 2014; Brighter Africa report; World Bank

Flagship programmes will support the strategic themes

	Strategic themes	Flagship programmes	
Enabling the system	Set up enabling policy environment	IPP procurement Renewable Energy Energy Effciency	Transformative Partnership for Energy in Africa
	Enable utilities for success	Power utility transformation	
Getting projects financed	Dramatically increase number of bankable projects	Early stage project support facility	
	Increase funding pool to deliver new projects	Funding catalyst	
Scaling up access	Promote bottom of the pyramid energy access programmes	Bottom of the pyramid financing Mobile payment Clean cooking	
Delivering execution	Accelerate large-scale projects to promote regional integration	Regional projects acceleration	
	Roll out waves of country-wide transformations	Country-wide energy sector transformations	

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Thank you!

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