

Unlocking Financing for Clean Energy in Kenya

Workshop - Nairobi, KENYA - 15 May 2012

Workshop Summary

Workshop organised by the World Economic Forum in collaboration with the Kenyan Government Climate Action Plan, the UNEP Finance Initiative, the UK Capital Markets Climate Initiative and the US National Renewable Energy Laboratory with the aim to identify critical bottlenecks to financing clean energy in Kenya and to design solutions where public finance can help unlock the private finance. The workshop successfully identified some key mechanisms that could enable the private sector to deploy more finance into clean energy in Kenya. Several working groups will take these ideas forward and refine their design, with the aim to have them proposed for financing in the coming year.

Background to the workshop

The Vision 2030, Kenya's blueprint for development « aims to transform Kenya into a newly industrialising, middle-income country providing a high quality life to all its citizens by the year 2030 ». Based on the Vision 2030, the National Climate Change Response Strategy (NCCRS) outlined the seriousness of the climate change threat to economic growth and development and spelled out a concerted programme of action to mitigate and adapt to climate change impacts. To implement the strategy, an Action Plan was laid out that aims to provide a robust foundation for climate compatible development. In order to reach its Action Plan goals and at the same time implement its climate change strategy, Kenya will need significant financial means. Overall, the NCCRS identifies total resource requirement of 236bn KES per year (roughly USD 2.7 Bn per year). For example, a central aspect of the NCCRS is to increase its power generation from the current 1,479 MW to over 21GW. This alone will require up to USD 45 billion by 2030, including USD 18 billion to develop 5000 MW of geothermal power.

To help achieve this goal and as part of its ongoing work helping to unlock private financing for green growth in various developing countries, the World Economic Forum hosted a workshop for international and domestic private and public stakeholders. The objective was threefold: to **help understand various bottlenecks** to the deployment of private finance of clean energy at scale (large-scale grid connected and decentralized solutions), **share best practices** in financing for clean energy in Kenya, and **explore existing pilot or planned solutions** where public finance can help bridge the risk gap through strategic, breakthrough mechanisms.

The workshop provided a collaborative setting to take forward existing and new efforts by domestic and international private finance and business representatives, development finance institutions and donor governments, representatives of the Kenya Climate Action Plan and other public and private institutions. In the coming year, the World Economic Forum will support the development of the solutions identified at the workshop, in close collaboration with the workshop partners and with participants and drawing from other relevant expertise in the Forum's worldwide network.

Summary of discussions includes:

1. **State of the sector and financing needs**
2. **Barriers to the deployment of private finance at scale**
3. **Proposed solutions**
4. **Next steps**
5. **Annexes: list of participants and workshop agenda**

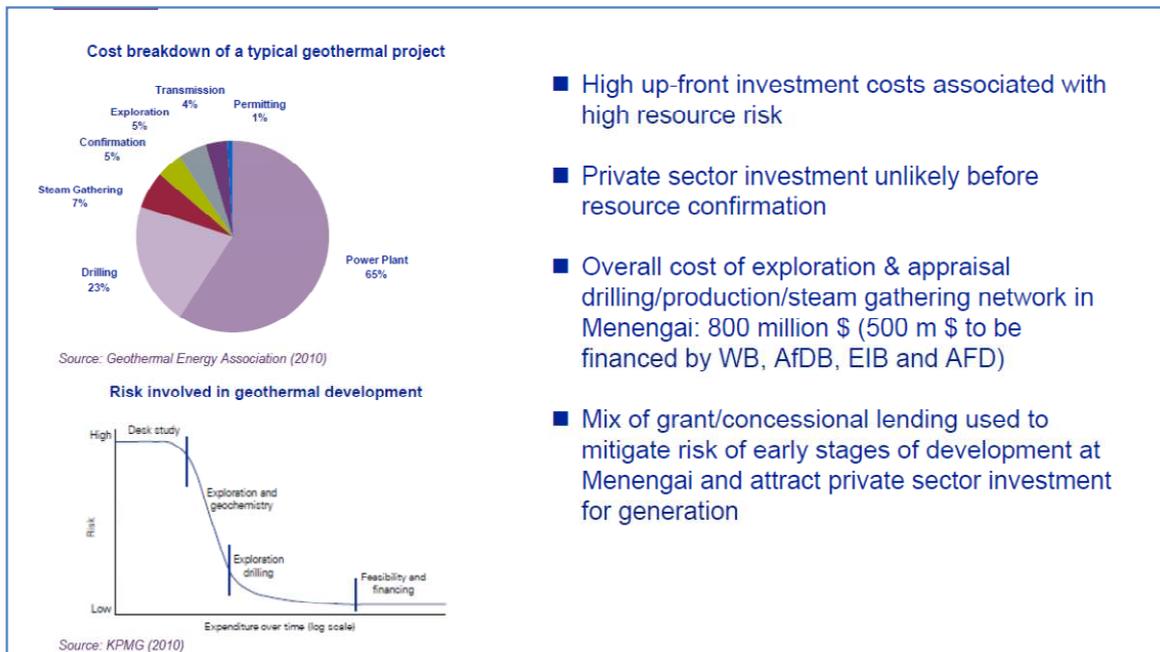
1. State of the sector and financing needs

Discussions opened up with an overview of the Kenyan clean energy market ambition and scale, overall finance needs, understanding the various key players, the structure and realities of the electricity system, and financial markets, and the potential of the various technologies.

Highlights from presentations made include:

- **Total current power generation in Kenya** amounts to 1,479MW, with an access rate of less than 25 percent and per capita electricity consumption of 147 kWh (122nd in the world). The generation mix includes: 50% hydro, 35% thermal, 13% geothermal, 2% cogeneration, and others. The average retail tariff is of 15 cents/kWh, which compares well with neighboring countries (for example, Rwanda 20 cents, Ethiopia 3 cents, Uganda 12 cents, Tanzania 8 cents). The system has been expanding at 4.2% p.a. between 2002-2011. Under the Vision 2030's Least Cost Power Development Plan (LCPDP), the ambition is to develop geothermal 5,000+MW, wind 2,000+MW, an expansion of 9.3% p.a. with USD 23 billion in renewable energy generation, USD 4.5 billion in transmission.
- **The energy market is seen as enjoying some good credentials:** the institutional and regulatory set-up is relatively sound, with independent and transparent regulation; tariffs are reflective of the cost of generation and the cost is fully passed onto consumers which makes the distribution Kenya Power and Lighting Company (KPLC) and utilities financially stable, which in turn makes lenders trust them; there is a track record of collaboration in the country with a range of development partners present on the ground, there are existing IPPs, a series of reforms since the late 1990s have got utilities semi-privatized, with shares held by private owners; and finally, Kenya has a relatively well developed and sophisticated financial market.
- **Drivers of the development of renewable energy include** the significant potential in geothermal (about 7-10GW in the Rift Valley), wind (around 2GW estimate, lack of measurement), solar (not estimated yet), biomass, hydro. It is also driven by energy security concerns (impact of drought on hydropower estimated at Ksh.32,392bn (USD 400 million) in FY2009/10 and fossil fuel import dependency representing 16.8% of energy consumption but costing around USD 260million in the electricity sector alone, half of the bill) and a requirement to lower the dependency on fuel imports.
- **A set of strong policies and planning documents** (the National Climate Change Response Strategy, the Climate Change Action Plan, the energy policy, the Energy Act, the LCPDP, the Feed-in-Tariff, among others) are also significant drivers for the deployment of clean energy at scale. Under the Climate Change Action Plan for example, the design of a climate fund for Kenya is well underway and could catalyse significant funding towards the scale up of private investment in clean energy. Regional integration and a series of regional and international coordination mechanisms and partnerships also help drive renewable scale.
- **Kenya's ambitious clean energy development plan will require significant financing.** Around 45bn USD are estimated by 2030, of which 60% on the generation side (41.4bn USD) and the rest (3.9bn USD) for transmission. Over the next 5 years, the financing needs are estimated at around 7.3bn USD of which around 1bn USD for geothermal resource assessment (Geothermal Development Corporation), around 3.6bn USD for generation (Kengen and IPPs), around 2bn USD for transmission (KETRACO) and the rest for distribution (KPLC).
- **Existing donor financing in the energy sector** covers 36 projects / programmes, with 20 donors / DFIs active and 210bn KES (around 2.4bn USD) invested in the sector from 2005 to 2010. Donors are deploying a range of financing tools (grants, mixed grants and loans), with concessional lending representing 98% of current donor financing (8 development banks). Projects range from large infrastructure projects, such as interconnectors and geothermal plants, to smaller rural electrification, technical assistance and capacity building. Around 51% of donor financing is focused on generation, 20% on transmission, 13% on distribution and the remainder on other sector-wide needs.

- Although risk mitigation is a small fraction of total donor support to the sector, some precedents in deploying risk mitigation by donor financing to attract private financing exist primarily in geothermal, see the example of the Menengai power plant below (source: Agence Française de Développement workshop presentation).



- **Examples of bridging the gaps to private sector financing** include the recently launched Climate Innovation Centre. In addition to a variety of advisory and information services, the Centre targets the deployment of proof of concept grants to demonstrate product / component, VC-style investments of between 50k to 1M USD in equity and / or debt and investment facilitation through a global network of investors, to help clean technologies and companies go through the so-called development and demonstration “valley of death” before they are able to scale up. Other examples include the Africa Enterprise Challenge Fund, a facility that has made 21 investments to date, between 250k-1.2M USD into projects that can be sustainable financially, or MPESA the very successful mobile banking company.

2. Barriers to the deployment of private finance at scale

The second session focused on the private financing for clean energy: what are the bottlenecks for deploying private financing for clean energy at scale, and what possible solutions can or should be taken. Issues that were explored included: regulatory and policy environments conducive for investment in clean energy (on-grid and decentralized separately); grid infrastructure, capacity and integration; availability of domestic and foreign finance sources and requirements for finance to be deployed; technology experience in Kenya, and availability of experienced developers; improving the bankability of projects (legal, technical, financial aspects) etc.

Highlights from discussions include:

- **Risk and availability of risk mitigation**
 - The availability of financial products to mitigate risk: some participants expressed confidence in the availability of political risk insurance through institutions like MIGA – for those able to overcome the upfront costs to engage. This was noted as significant given alternative perspective from parties who had not found these instruments to be so readily accessible

- Large scale projects are better positioned to raise early stage project preparation funds which gets the project to a level where other investors including DFIs are comfortable engaging. For example, the Lake Turkana project financed its 5 million euro project preparation stage through friends and family and a private placement in the Netherlands. They were then able to raise the full project finance of 750m (70% debt, 30% equity). However these large scale projects have significant risk mitigation needs. There are two main components of risk: political risk – the main requirement being to demonstrate that the regulatory and policy environment are sound and will remain stable over and beyond individuals change in circumstances. The second dimension is credit risk – will the project service the loan and pay the equity returns, which relates to the reliability of the revenue sources.
- Inconsistence expectations from DFI and institutional investors. The experience of the Lake Turkana project for example shows that although the off-taker was seen as financially sound and bankable, the negotiation of the PPA and of the corresponding risk coverage lasted 4 years, with significant associated additional project costs.
- Land availability and permitting issues are important bottlenecks, with difficulties in securing stable long-term land allocation and difficulties in determining land ownership (community vs non-community) and use (agricultural land for example).
- **Equity constraints and donor competition**
 - Lack of appropriate equity, including lack of early stage high-risk / high-return capital, ban on private placements, competition from grants and other forms of philanthropy (“crowding out private investments”) and a culture of maintaining full ownership in projects / companies – unrealistic expectations from project developers. Insufficient know-how on how equity investments work and shape the revenue models.
 - Institutional investors are scarce in Kenya as well as in other emerging markets. A number of institutional funds are beginning to be active in the country (such as for example ResponsAbility) and the equity returns are attractive (could be around 15-19%), but the equity investment culture is difficult as a new structure. A more favourable private equity enabling environment, as well as availability of first loss tranches from public finance institutions could go a long way to attracting institutional investors.
- **Lending capacity for large-scale options and concessional finance crowd-out effects**
 - Lack of capacity in local banks to assess the viability of clean energy projects and lack of long-term financing by local banks. Combined with the lack of capacity of sponsors to demonstrate the bankability of projects, the inappropriate loan tenors (typically of 5 years, rarely 7 and maximum 10 years), these barriers make for limited successful commercial project finance to date.
 - Discrepancy between some donor approaches that favour concessional finance for specific technologies and a market-driven, technology-agnostic approach that could be encouraged via commercial finance.
- **Inappropriate forms of finance**
 - Difficulty of small-scale decentralized solutions to access finance. The business opportunities are too big for some kinds of grants, but not big enough for commercial lending. As such, they sit within a grey area that makes them difficult to be considered for financing. Innovative approaches, such as upfront carbon commitments (for example by BoA/ML) are being experimented and have proven some success to date (the case of Nuru Energy for example).
 - With respect to distributed models the availability of working capital was also identified as a significant issue. With extended import time horizons and the need to retain high stocking rates – the need for substantial sums of working capital puts pressure on distributed generation equipment providers who can struggle to secure sufficient funds.

- **Other market issues**

- Lack of renewable technology performance/time series data impacting lenders willingness to extend financing at a viable risk premium due to a limited track record of renewable projects performance in Kenya (despite a long history/data sets from other geographies).
- Infrastructure adequacy: For distributed renewable companies the ability to deliver goods & components in a timely manner - both at the B2B and B2C level - impacts market uptake
- Product spoilage: Poor regulation of component quality and a consequent lack of trust in some renewable technologies was suggested to impact on renewable technology uptake (although some positive steps have been taken in establishing quality standards through the 'Lighting Africa' initiative)

3. Proposed solutions

Throughout the day, there was agreement that more could be done to enable private financing of clean energy at a significantly larger scale. Innovative funding mechanisms were seen as a key requirement. In four parallel groups, participants worked to produce solutions across the following areas: 1. Improving project bankability; 2. Scaling up early stage equity; 3. Credit enhancements, including low-cost debt and loan guarantees for clean energy project finance; 4. Energy access challenge: unlocking business opportunities. For a detailed description of these groups, see Agenda in the Annex 2 to this document.

A series of specific vehicles and instruments were proposed. These include:

1. In order to help enable the bankability of the PPA, a process of creating a **standardized PPA was proposed**. On the example of Lake Turkana and also using some of the best available bankable PPAs that are getting closure in the next few months, a standard PPA could be developed. This would reduce uncertainty and would limit the time and money consuming negotiation process. Given that a standardised PPA could lead to a large increase in applications from project developers, it was suggested that the application process could include a fee structure (linked to the amount of MW of the project) to limit applications of under- or unqualified project developers. Payment of the fee, would give the project developer the right to develop a project over a previously agreed amount of time.
2. Related to this, **working with the private insurers on concrete proposals** – for example in geothermal – to determine the “normal” energy market portion of the risk that could be covered commercially, thereby relieving some of the public bill that could go towards enabling private finance.
3. Given the significant risks profile of decentralized energy projects, a proposal was made that a **risk-sharing facility could be created to help banks enter a market of decentralized projects**. Through pooling, the same facility could be used for several transactions and especially for early-stage risk sharing. The pool would rely on agreed credit assessment / eligibility criteria, with a wholesaling approach from IFC for example and with domestic banks originating the business.
4. To increase lending capacity for domestic banks, a **refinancing facility on the model of the EBRD in East Europe or the model of the 30M EUR credit facility by AFD for concessional financing through local banking system** (currently in place for Stanbic and Co-Operative Bank of Kenya) of selected investments in renewable energy and energy efficiency projects.
5. Given that local commercial banks cannot lend beyond 5 years and that project developers are often looking for 15 year tenors, **a take-out facility could be created in which lenders could opt to exit the loan after each consecutive 5 year period**. When exiting the loan the bank would transfer the loan to a separate vehicle (presumably owned or backed by public, DFI or PPP) which would take it on its balance sheet or transfer it to other interested parties.. The entity would need to build in margin risk,

liquidity risk and project risk insurance. No defaulted (or soon defaulting) clients would be accepted by the facility. The take-out facility would address the issue of liquidity availability but would also help build capacity of the domestic banks through enabling and scaling deal and cash flows.

6. To seed the market, one of the key elements would be to grow the local banks' project finance capacity. One idea was to **revive "merchant banking" (or Private banking)** – i.e. banks taking up an idea and then selling it back to its clients. Local investors are not familiar with opportunities in the renewable energy space and tend to channel all their investments into real estate. They would be a suitable source for early stage equity for projects. Similarly, international investors see renewable energy projects as investments with attractive returns but they do not have access to information on these opportunities.
7. A Kenyan **results-based financing (RBF) mechanism** could create the visible, long term, "AAA" cash-flows needed to leverage significant amounts of private capital into emission reduction and pro-developmental projects. This would be a way of bringing about climate and development outcomes at least cost, while maximising private sector leverage. An RBF mechanisms could take a number of forms, from a simple tender for verified outcomes to something more akin to a real financial instrument such as a put option for emission reductions. All of these would deliver enhanced value for money for taxpayers and significant private sector leverage.

Other suggestions were made including the need for public finance to provide more risk underwriting for groups to access loans from commercial banks, on the model that is currently provided by the USAID in the country. In addition, it was noted that small size projects could access financing easier if they were able to have a guaranteed cash-flow, in the form of a "PPA-like" arrangement. Could the Rural Electrification Authority (REA) for example somehow guarantee the purchase of the power? In which case, a public guarantee would probably be required, since the REA is not seen as bankable. Another proposal was a survey of risk mitigation needs and existing tools, in order to better understand and un-bundle the various kinds of risks.

Discussions also focused on ways to avoid public finance crowding out private financing. To avoid crowding out commercial lending, concessional finance could be better targeted for example towards areas where there is lack of indigenous capital, re-financing of capital, first loss risk coverage and advanced market commitments / carbon put options that could help provide cash-flow visibility. To avoid crowding out private equity and instead facilitate private and institutional investments, more public and development financing could be directed towards enabling instruments such as for example first loss tranches, matching funds and guarantees to commercial banks. These learnings, together with the specific vehicles proposed could also help inform the forthcoming Kenya climate fund, currently being designed, especially with respect to how those funds could help catalyse private financing at scale.

Finally, to help scale up innovation and help project go from innovation to proof of concept to financing, an incubator could be hosted potentially under the CIC, based on examples from the ICT industry. Developers could exchange ideas on business models, on accessing appropriate forms of capital, on educating consumers, on standardizing production to reach scale, among other things.

4. Next steps

The World Economic Forum, together with the workshop partners will follow up on the specific mechanisms / vehicles proposed by participants. Specific working groups will be formed to support the development of these ideas over the next few months, driven by champions self-selected among participants. A calendar of work is proposed as follows:

- **May – September:** under a collaborative platform led by the World Economic Forum, working groups are formed drawing from domestic and international public and private sector expertise, including participants

in the workshop. Via virtual meetings and conference calls they refine and test the concept of the proposed solutions, advance their design and identify partners who can collaborate to the development of these vehicles.

- **Thursday 13 September** (tentative date): working groups meet in Nairobi to present the detailed first draft design of the solutions, discuss and establish a plan for their development.
- **September – November**: refine the design of solutions, identify donor interest / potential pledges and prepare second draft proposals for World Economic Forum event at COP18.
- **December**: select working groups representatives participate in a World Economic Forum side event at COP18, Doha, to present progress on the vehicles, demonstrate private finance support and “pitch” for support from donor climate finance. The aim is to have the Prime Minister of Kenya championing the event. This event would illustrate concrete progress can be made through leveraging private finance.
- **January 2013**: At World Economic Forum Annual Meeting in Davos, Government of Kenya, together with representatives from public and private finance present progress and secure support at a high-level event with heads of state, of international organisations and multilateral finance and CEOs from finance and other industry sectors.
- **February – April**: Final draft vehicles are designed and proposals are written for submission for funding by donor finance / climate finance. Beyond April, the various vehicles are empowered to be developed further on, with World Economic Forum guidance as and when required.
- **8-10 May 2013**: World Economic Forum on Africa, Cape Town: representatives from the Kenyan government, public finance and private finance present progress on vehicles, establish a way forward for the Kenya collaborative platform and showcase their leadership, their approach and results to other countries on the continent, to take the catalysing of private financing opportunities one step further.

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Annex 1: Final List of Participants

Stephan Willms	Partner	Africa Enablers	Ethiopia
Maitane Concellon	Chair of Energy Donor Group	Agence Française de Développement (ADF)	Kenya
Nastassja Hoffet	Research Associate	Agence Française de Développement (ADF)	Kenya
Eliud Waigi	Investment Officer, Proparco	Agence Française de Développement (ADF)	Kenya
Nick Mbuvi	Director, Corporate Banking	Barclays Bank Kenya Ltd	Kenya
Matthew Woods	Founder and Operations Director	Carbon Africa Ltd	Kenya
Kwame Parker	Director and Head, Debt Solutions and Infrastructure Finance	CfCStanbic Bank Kenya Limited	Kenya
Sabira Thakker	Vice-President, Unit Head and Corporate Bank	Citibank	Kenya
Tom Morton	Director	Climate Care	Kenya
Ben Caldecott	Head of European Policy	Climate Change Capital	United Kingdom
Cecilia B. Rague	Product Manager, Corporate and SME	Commercial Bank of Africa Ltd	Kenya
Peter N. Ndegwa	Head of Agribusiness	Co-Operative Bank of Kenya Ltd	Kenya
Virinder Sharma	Climate Change Adviser	Department for International Development (DFID)	Kenya
Henry Tanui	Risk Manager	Ecobank Kenya	Kenya
Emma Caddy	Director, Low Carbon Enterprise Fund	Environmental Resources Management (ERM)	Kenya
Kevin Blanchard	Project Coordinator, International Advisory Services	Frankfurt School - UNEP Centre	Germany
Tobias Panofen	Project Coordinator	Frankfurt School - UNEP Centre	Germany
Jesper Hörnberg	Chief Executive Officer and Founder	Givewatts	Kenya
Theuns Coetzee	Sales Manager, Africa Enterprise	Inmarsat	South Africa
Arthur Itotia Njagi	Programme Manager, Lighting Africa	International Finance Corporation (IFC)	Kenya
Peter Kariuki Thande	Senior Investment Officer	International Finance Corporation (IFC)	Kenya
Deborah Murphy	Project Coordinator, Kenya's Climate Change Action Plan	International Institute for Sustainable Development (IISD)	Canada
Rachel Gathoni	Manager, KCB Foundation	Kenya Commercial Bank Ltd	Kenya
Kiprop David Malakwen	Company Secretary	Kenya Commercial Bank Ltd	Kenya
Carlo van Wageningen	Chairman	Lake Turkana Wind Power Company Ltd (LTWC)	Kenya
Anthony M'Barine	Director, Business Development	Marine Power Generation Company Ltd	Kenya
Noelle O'Brien	Component Coordinator, Action Plan, National Climate Change Response Strategy	Ministry of Environment and Mineral Resources of Kenya	Kenya
Sarah Standley	Technical Adviser, Climate Change	Ministry of Environment and Mineral Resources of Kenya	Kenya
Anne Nyaboke Angwenyi	Team Leader, Natural Resource Management and Climate Change Programmes	Ministry of Foreign Affairs of Denmark	Denmark
Daniela Brenco	Chief Operating Officer, Africa	Nuru Energy Group	Mauritius
Sloan Holzman	Country Director, Kenya	Nuru Energy Group	Mauritius
Hino Hiroyuki	Special Adviser	Office of the Prime Minister of Kenya	Kenya
Tim Ash Vie	Advisory Director	PwC	Kenya
Joseph Nganga	Chief Executive Officer	Renewable Energy Ventures Ltd	Kenya
Patrick Huber	Regional Manager, Africa	ResponsAbility Africa Ltd	Kenya

Mercy Gachichio	Business Manager	Sinclair Knight Merz Ltd	Kenya
Brad Sterley	Global Head, Clean Energy, Project and Export Finance	Standard Chartered Bank	Singapore
Mits Motohashi	Energy and Financial Specialist, Africa Energy Group	The World Bank	Kenya
Mary W. Njoroge	Director, infoDev, Climate Innovation Centre	The World Bank	Kenya
Redouane Elbouchikhy	Managing Director, Africa	Trina Solar AG	Switzerland
Julius Riungu	Chief Executive Officer	Tsavo Power Company Limited	Kenya
Kofi Vondolia	Consultant, Green Economy Project	United Nations Environment Programme (UNEP)	Kenya
Meseret Zemedkun	Project Manager, ARGeo Project	United Nations Environment Programme (UNEP)	Kenya
Michel Crevecoeur	Coordinator, Africa Task Force	United Nations Environment Programme Finance Initiative (UNEP FI)	Switzerland
Alexander Hall	Economic Officer	US Embassy	Kenya
Brindusa Fidanza	Associate Director, Environmental Initiatives, Global Leadership Fellow	World Economic Forum	Switzerland
Hanseul Kim	Project Manager, Engineering & Construction Industry, Global Leadership Fellow	World Economic Forum	Switzerland
William Hoffman	Associate Director, Telecommunications Industry	World Economic Forum USA	USA

Annex 2: Final Agenda

Tuesday, May 15

08:30-09:00 Welcome coffee

09:00-10:00 Panel 1: Overview of the Kenyan clean energy market ambition and scale, overall finance needs, understanding the various key players, the structure and realities of the electricity system, and financial markets, and the potential of the various technologies.

Moderated by: Brindusa Fidanza, Associate Director, Environmental Initiatives, World Economic Forum

Speakers to include:

- Maitane Concellon, Agence Francaise de Développement (AFD), Co-Chair of Energy donor group
- Mits Motohashi, Energy and Finance Specialist, Africa Energy Group World Bank (SREP)
- Mary Njoroge, World Bank Climate Innovation Centre

10:00-10:30 Networking break

10:30-12:30 Panel 2: Financing for clean energy: what are the bottlenecks for deploying private financing for clean energy at scale, and what possible solutions can or should be taken. Issues to explore include: regulatory and policy environments conducive for investment in clean energy (on-grid and decentralized separately); grid infrastructure, capacity and integration; availability of domestic and foreign finance sources and requirements for finance to be deployed; technology experience in Kenya, and availability of experienced developers; improving the bankability of projects (legal, technical, financial aspects) etc.

Moderated by: Joseph Nganga, CEO, Renewable Energy Ventures

Fire-starters: (each to give 5 minutes perspectives on bottlenecks to private finance)

- Daniela Branco, COO, Nuru Energy
- Patrick Huber, Director, Africa, ResponsAbility
- Kwame Parker, Director, Head of debt solutions and infrastructure finance for East Africa, Stanbic
- Jesper Hornberg, for AECF-REACT
- Carlo van Wageningen, Chairman, Lake Turkana

This session will be an interactive discussion with participants.

12:30-14:00 Networking lunch

14:00-16:30 Parallel roundtable working sessions

These working sessions will dive deeper into specific bottlenecks to the deployment of private financing at scale into clean energy in Kenya. Participants will be invited to choose to contribute to one of the four sessions below:

Session 1: Improving project bankability

Across the Kenyan clean energy market, a range of experiences exist as to the 'bankability' of the PPA and the associated utility counterparty risk, with varying views depending among others on the size of the project, on the size of the developer, on whether the developer or the funder are domestic or international entities. This session will aim to identify the main bottlenecks to project bankability and explore solutions, including policy and regulatory aspects and financial products to mitigate risk, their availability and affordability at scale.

Session champion: Kwame Parker, CFS Stanbic

Session 2: Scaling up early stage equity

The lack of track record in the low-carbon market segment and the associated mismatch between the risk and reward of investing in early stage developments, raises significant obstacles to innovation and to the deployment of a critical mass of project pipeline. This is a common problem and is particularly acute in the SME market segment in Kenya. This session will explore some of the main obstacles to financing of early stage developments and will explore solutions, including the availability of appropriate public or private instruments for early stage financing and risk mitigation tools that could draw in large-scale equity providers.

Session champions: Patrik Huber, ResponsAbility ; Joseph Nganga, Renewable Energy Ventures

Session 3: Credit enhancements including: low-cost debt, and loan guarantees for clean energy project finance

Enabling the scale up of the energy market requires a set of accessible low-cost debt and other credit enhancement instruments. Examples include subordinated loans from development banks, loan guarantees or rotating funds that provide credit lines for domestic banks, to allow local banks to extend financing for distributed or large scale utility renewable projects. This session will discuss the key requirements to lowering the cost of debt and explore solutions. Part of this discussion, an exploration of carbon underwriting mechanisms that enable SMEs to access credit worthy revenue streams or other business models for enhanced revenue streams, which in turn would enable entrepreneurs to access low-cost debt and equity.

Session champion: Ben Caldecott, Climate Change Capital

Session 4: Energy Access Challenge: Unlocking Business Opportunities

Access to affordable modern energy is critical to Kenya's economic and social development and health. To date, multilateral organisations, development aid and domestic government remain the biggest sources of finance for access to energy. Although there are already a significant number of country initiatives or social enterprises operating in the energy access market, there is wide agreement that private sector finance needs to grow the most in order to close the energy access gap. This session will explore innovative business models that have the potential to scale, including the role of mobile technologies in payment for energy services and requirements for private sector investment, including innovative financing for decentralized business models.

Session champion: Daniela Branco, Nuru Energy

16:30-17:30 Wrapping up and way forward, moderated by World Economic Forum

17:30-19:00 Cocktail

Number of participants: max 50. Participation is free of charge and by invitation only.

Participants to include: international private finance, domestic private finance, international development finance institutions, domestic and international project developers, leading business representatives, Climate Action Plan representatives, other domestic and international stakeholders.