“AfDB Public-Private Partnership Program”
A successful partnership between AfDB and GEF for CC mitigation activities in Africa

Side Event at the 11th Technology Executive Committee in Bonn, Germany

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Joao Duarte CUNHA, Chief Climate Change Officer, AfDB

Date: 7th September 2015
Outline of Presentation

1. AfDB GEF funded Projects on Technology Transfer
2. Project GEFID 4929 AfDB-PPP Public-Private Partnership Program
3. Lessons learnt and discussion
AfDB GEF funded Project in Technology Transfer and investments

Cote d’Ivoire: Construction of 1000 Ton per day Municipal Solid Wastes Composting Unit in Akouedo

GEF Grant (CCM) : $2,625,000  
AfDB co-financing : $36,898,500

The overall objective of the project is the transfer to the Ivory Coast of an environmentally friendly technology for a sustainable integrated management system for municipal solid waste in the agglomeration of Abidjan. This will be done through the construction and operation of a pilot 1,000 tons/day industrial composting unit in the said agglomeration, thus reducing anthropogenic greenhouse gas emissions, which cause climate change.

Multinational - Pilot African Climate Technology Finance Center and Network

GEF Grant : $14,340,000  
AfDB co-financing : $95,000,000

The project supports the deployment of technologies for both climate change mitigation and adaptation in Sub-Saharan Africa by: (i) catalyzing public and private finance for low-carbon technologies and climate resilient development projects; and (ii) assisting with integrating technology transfer considerations into developing countries' policies and investment programs and strengthening design and enforcement capacities of public institutions. It has three components, including: (i) networking and knowledge, (ii) policy, institutional and organizational reforms, and (iii) investment programs and projects.

Multinational - AfDB-PPP Public-Private Partnership Program

GEF Grant : $20,000,000  
AfDB co-financing : $240,000,000

The program will support renewable energy projects that apply for financing through the AfDB private-sector arm. The program will provide funds that are parallel to AfDB private-sector investments and will retain flexibility to offer concessional terms with a tenor of 15 years, and in some cases up to 20 years. These tenors (door-to-door periods) correspond first to the construction period, then a grace period, and finally the repayment period of the loan. Construction periods, in particular for larger infrastructure, might go up to four to five years. In general, according to AfDB policy, grace periods of up to five years can be offered for private sector projects, considering the cash flow projections of the respective project.
Origins & sponsors

- Multi-Donor Trust Fund to unlock private investments in small/medium RE/EE projects
- provides project preparation (I) equity capital (II); enabling environment support (III)
- Looking for fund manager to deploy its equity allocation

- Industries and Services Team (OPSM.2) advising client (ABREC) on fund structuring
- Bank’s strong experience on private equity BUT very limited exposure to green sectors
- Interest in incubating an African vehicle for investments in the “clean tech” space

- ABREC a West African TA outfit owned by 13 African States
- Advisor to public sector on renewables projects / limited private sector experience
- Interested in creating a commercial fund to invest in “green” projects

The three came together and started working on the “Green Tech Financial Facility “ (GTFF) concept ...later renamed AREF!
Work started in August 2012 with the approval of a SEFA preparation grant of USD 0.8 million to finance advisory firm (LHGP)

**Market Study**  
(Nov12 – Feb13)

- Market Segmentation to identify **investable sub-sectors**
- Quantification of **market size**
- Identification of **key market participants**, including developers, equity and debt investors
- Analysis of investment opportunity
- Identification of **market gaps**, investment barriers

**Fund Structuring**  
(Feb13 – March13)

- Define target market and **Fund investment strategy**
- Design the most appropriate **Fund structure** considering risk/return of the portfolio and targeted investors
- Define **TA scope** and governance mechanism
- Define **Fund governance** structures
- Specify **terms and conditions** of the investment vehicle

**Fund Manager Selection**  
(April13 – June13)

- Identify potential **fund managers**
- Document **selection criteria**
- Launch **EOI and RFP Process**
- Evaluate proposals/ negotiate fund management terms

AfDB/SEFA ADVISORS:
Around 600 million people in SSA lack access to electricity and 2/3 of countries experience chronic power shortages

**Total population (bn)**

- SSA
- China
- India

Source: WB, 2013; UN, 2013

**Electricity consumption per capita (kWh)**

- SSA
- China
- India

Source: WB, 2013; EIA, 2013

African Population growing, increasingly affluent and urbanized...

...but no growth in electricity consumption due to lack of supply!
Renewable resources are abundant in Africa, scalable and suitable for grid, and increasingly attractive in price.

Africa is endowed with so some of the best renewable resources globally...

...and can compete with conventional technologies!
Market opportunity: ENABLING ENVIRON.

Many SSA countries introducing RE policy incentives...

<table>
<thead>
<tr>
<th>Renewable energy policies in selected countries</th>
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</thead>
<tbody>
<tr>
<td>RE target</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Cameroon</td>
</tr>
<tr>
<td>Cote D'Ivoire</td>
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<tr>
<td>Ethiopia</td>
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<tr>
<td>Ghana</td>
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<td>Kenya</td>
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<td>Malawi</td>
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<td>Mozambique</td>
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<td>Rwanda</td>
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<td>Senegal</td>
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<td>Tanzania</td>
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<td>Togo</td>
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<tr>
<td>Uganda</td>
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<tr>
<td>Zambia</td>
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</tbody>
</table>

Source: REN21, 2013

...and reforming electricity sectors to enable private sector participation

IPP installed capacity (GW)
# Fund Strategy

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Strategy</th>
<th>Rationale</th>
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<tbody>
<tr>
<td><strong>Geography</strong></td>
<td>Two out of four regions: East Africa, West Africa, Central Africa and Southern Africa</td>
<td>▪ Energy demand / supply gap &amp; significant renewable resource&lt;br&gt;▪ Electricity sector reform &amp; regulatory / fiscal incentives</td>
</tr>
<tr>
<td><strong>Renewable Technologies</strong></td>
<td>small hydro, wind, solar, geothermal, stranded gas and biomass.</td>
<td>▪ Operationally proven and economically mature&lt;br&gt;▪ Able to support project finance (c.50% - 70% leverage)</td>
</tr>
<tr>
<td><strong>Deal Size</strong></td>
<td>Project size US $10-80 million (small / medium)</td>
<td>▪ Complementarity to AfDB strategy (bias towards large projs.)&lt;br&gt;▪ Many opportunities BUT lack of development and equity capital</td>
</tr>
<tr>
<td><strong>Stage</strong></td>
<td>Development into construction</td>
<td>▪ Ideal risk-return profile and timeline&lt;br&gt;▪ Limited competition and wide availability of projects</td>
</tr>
<tr>
<td><strong>Technical Assistance</strong></td>
<td>Support early stage project development and building capacity of entrepreneurs</td>
<td>▪ Developers with insufficient expertise and capacity&lt;br&gt;▪ Leverage SEFA partnership and TA contribution (USD 10m)</td>
</tr>
<tr>
<td><strong>Shareholdings</strong></td>
<td>Controlling positions</td>
<td>▪ Drive operational value creation throughout holding period&lt;br&gt;▪ Control exit</td>
</tr>
<tr>
<td><strong>Project Revenue</strong></td>
<td>Electricity and by-products</td>
<td>▪ Long-term contracts and additional revenues where possible</td>
</tr>
<tr>
<td><strong>Hold Period</strong></td>
<td>c. 5-7 years</td>
<td>▪ c.1-3 yrs development, 1-3 yrs construction, c.1-3 yrs operations&lt;br&gt; ▪ Demonstrate operating track record to optimise capital gain</td>
</tr>
<tr>
<td><strong>Distributions</strong></td>
<td>Capital gains focus</td>
<td>▪ Divest to trade and financial buyers with lower yield requirement</td>
</tr>
</tbody>
</table>
Innovative Fund Structure

- Class A shares: Concessional Equity Tranche
- Class B shares: Commercial Equity Tranche
- Project Support Facility / revolving and “investable” at end of its life
- Secondment Programme / transfer skills to local young experts
“Berkeley Energy” selected from an initial list of 20 investment firms that expressed interest. Distinguishing features include:

- **Track-record**: currently managing an identical initiative in Asia
- **Corporate focus**: power projects / renewable energy
- **Capacity**: strong engineering skills complementing financial skills
- **Approach**: early stage engagement / building capacity of entrepreneurs
- **Africa experience**: of some members + ABREC partnership
# AREF Team Principals

**Fund Manager selection**

Deep renewable energy project development, construction and operations experience combined with structuring, finance and investment expertise

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
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<tbody>
<tr>
<td>TC Kundi</td>
<td>Managing Partner Investment / EPC / Operations</td>
</tr>
<tr>
<td>Luka Buljan</td>
<td>Investment Director Origination / Execution</td>
</tr>
<tr>
<td>Alastair Vere Nicoll</td>
<td>Partner Investment / Legal / Structuring</td>
</tr>
<tr>
<td>Andrew Reicher</td>
<td>Chairman Berkeley Africa, IC member Investment / Capacity building mentoring</td>
</tr>
<tr>
<td>Tierno Bocar Tall</td>
<td>ABREC CEO Origination / Advice</td>
</tr>
<tr>
<td>Edward Njoroge</td>
<td>IC member Investment / Origination</td>
</tr>
</tbody>
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**TC Kundi**
- 20+ years experience of identifying, investing, developing and operating renewable energy generating assets
- Built the UK’s largest renewable energy generating portfolio, with responsibility for over 80 individual projects
- Long-term experience of project development in emerging and developed markets, negotiating and managing EPC relationships

**Alastair Vere Nicoll**
- Principal role negotiating REAF portfolio investments and debt financings
- Lawyer specialised in private equity infrastructure deals in the renewable energy and water sectors
- Acted for many of the market leading infrastructure and private equity firms

**Andrew Reicher**
- Former Chief Investment Officer of CDC and Actis, overseeing 59 emerging market investments ($580m invested, 26.3% IRR, 2.8x multiple of cost)
- Manager of Actis’ first Infrastructure Fund, overseeing 14 power investments ($858m invested, 24.1% IRR, 2.0x multiple of cost)
- Deep experience of private equity, emerging markets, power infrastructure

**Luka Buljan**
- 12 years experience of developing, acquiring, financing, and selling power generation and distribution projects in sub-Saharan Africa
- Former CEO of Empower, COO of African Power Corporation, Director Business Development at Globeleq
- Extensive power sector relationships in East and West Africa

**Tierno Bocar Tall**
- ABREC was founded in 2009 to promote and invest in the development of renewable energy across Africa
- Owned by 13 African states and 6 financial institutions
- Extensive relationships across Africa in the renewable power sector and among public sector counterparties

**Edward Njoroge**
- Former Managing Director of Kenya Electricity Generating Company (KenGen)
- Played a pivotal role in the strategic transformation of the company, including its flotation on the Nairobi Stock Exchange and pivot towards geothermal and other renewable energy sources
- Board Member of the Nairobi Securities Exchange and Telkom Kenya Limited
Progress to date

• First fund close at USD 100m (March 2014)
  – Concessional (A-shares): $25m + gef $5m
  – Commercial (B-shares): $25m + boad $10m + bidc $10m + fmo $20m

• Project Support Facility ($10m from SEFA) structured and ready to go

• Office established in Nairobi and fully staffed

• “Secondment Programme” with ABREC launched

• First deal approved by AREF IC (20MW Ethiopia Geothermal)

• Fundraising on-going for second close – another $100m expected from CDC, EIB, GEEREF, BIO and private investors
Lessons learnt and way forward

**Scale up**
- AREF additional fund
- Replicability to other countries
- Continuous Pipeline development (AfDB)
- AfDB investments beyond GEF funding

**Sustainability and replicability**
- Country ownership and PPP scheme
- Private sector engagements
- Innovative funding mechanisms (AfDB, GEF) for replication

**Project’s Impact**
- 274 MW RE capacity to be installed
- 386 direct and 2,220 indirect jobs to be created over the life of the Fund
- 2.6 million tons CO2 emission reduction expected over life of the Fund
Fund Manager
www.berkeley-energy.com

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Thank You