African Development Bank:

Powering the Future on Africa’s Terms

Financing Energy Access

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Energy, Environment & Climate Change Department

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Who we are

- AfDB is the pan-African multilateral development bank
- Top priorities: infrastructure finance, private sector development, and regional integration
- AfDB leverages its AAA, UA 100 billion strong balance sheet to support economic and social development for all Africans
- AfDB has consistently been a major financer of the energy sector in Africa
Access to energy reduces poverty

Sub-Saharan Africa has a disproportionately high percentage of households without electricity.

If current trends continue, fewer than half of Sub-Saharan African countries will reach universal access even by 2050.
The potential is there

<table>
<thead>
<tr>
<th>Energy resources</th>
<th>Potential</th>
<th>Environmental impact/ Climate change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Oil</td>
<td>Moderate</td>
<td>Has a negative impact on environment</td>
</tr>
<tr>
<td>Hard coal</td>
<td>High</td>
<td>Has a negative impact on environment</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>High</td>
<td>Limited impact</td>
</tr>
<tr>
<td>Hydro Electric</td>
<td>Very high</td>
<td>Limited impact</td>
</tr>
<tr>
<td>Geothermal</td>
<td>High</td>
<td>Limited impact</td>
</tr>
<tr>
<td>Wind</td>
<td>High</td>
<td>Limited impact</td>
</tr>
<tr>
<td>Solar</td>
<td>Very high</td>
<td>Limited impact</td>
</tr>
<tr>
<td>Co-gen</td>
<td>Moderate</td>
<td>Limited impact</td>
</tr>
</tbody>
</table>
Our energy objective

Increasing access to energy while helping Africa adopt a low-carbon growth path.
Pillars of AfDB energy strategy

Access to Energy

Clean Energy
Instruments

Blend of instruments to leverage resources and assist African member governments in meeting energy challenge.
Two lending windows: public & private

AfDB’s lending operations

Public window
AfDB and ADF (LICs)

Recipient
Governments or state owned enterprises

Guarantee
Sovereign

Financial terms
Concessionary terms

Private window

- Privately owned enterprises
- Financially strong government owned enterprises

Recipient
Non sovereign

Guarantee
Commercial terms

Financial terms

Private window
Energy Sector Finance Tools of AfDB Group

- **Wide range of instruments:**
  - grants,
  - concessional loans,
  - Equity/quasi-equity
  - debt,
  - syndication,
  - Guarantees
  - Climate finance

- **Policy dialogue for sector development**
## Energy Access Projects

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Transmission</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>63.60</td>
<td>64.51</td>
<td>198.76</td>
<td>253.90</td>
<td>214.30</td>
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<tr>
<td>Interconnection</td>
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<td>0.00</td>
<td>57.98</td>
<td>72.49</td>
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<td>79.67</td>
<td>672.00</td>
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<tr>
<td>Rural Electrification</td>
<td>9.58</td>
<td>0.00</td>
<td>113.50</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>69.69</td>
<td>94.96</td>
<td>288</td>
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<tr>
<td>Generation</td>
<td>0.00</td>
<td>281.24</td>
<td>0.00</td>
<td>354.20</td>
<td>289.99</td>
<td>1,838.2</td>
<td>347.00</td>
<td>954.00</td>
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<tr>
<td>Private Sector Financing</td>
<td>10.45</td>
<td>6.84</td>
<td>0.00</td>
<td>409.28</td>
<td>5.52</td>
<td>51.40</td>
<td>230.92</td>
<td>743.88</td>
<td>1,458</td>
</tr>
</tbody>
</table>
Energy Access Projects - A Snapshot

Annual Approvals Energy Access Projects in UA million*

<table>
<thead>
<tr>
<th>Year</th>
<th>Transmission</th>
<th>Interconnexion</th>
<th>Rural Electrification</th>
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</thead>
<tbody>
<tr>
<td>2004</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>2005</td>
<td>0</td>
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<td>2006</td>
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<td>2007</td>
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<td>2008</td>
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<td>2009</td>
<td>0</td>
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</tr>
<tr>
<td>2010</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011 (Indicative)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total Approvals Energy Access Projects UA million*

<table>
<thead>
<tr>
<th>Category</th>
<th>2004-2010 and 2011 (Indicative Pipeline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission</td>
<td>795</td>
</tr>
<tr>
<td>Interconnexion</td>
<td>921</td>
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<tr>
<td>Rural Electrification</td>
<td>288</td>
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<td>Generation</td>
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<td>Private Sector Financing</td>
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* Including a UA 1.8 billion Medupi project
Rural Electrification, Burkina Faso

**Project Description**
- Reinforce and extend transmission and distribution lines to new localities
- Improve operating conditions, including rehabilitated distribution network and pre-paid meters

**Long-term Goal**
- Increase electricity access from 18% in 2007, to 60% by 2015

**Financing**
- Total cost: $57.5 million
- ADF grant: $40 million

**Benefits**
- More households with access to electricity
- Reduction of technical and commercial losses
- Boost countrywide network coverage
- Reduced production costs
Itezhi-Tezhi Hydro Power Plant, Zambia

- 120MW base load hydro power plant to be located at the site of the existing ITT dam on the Kafue River in Zambia
- The dam is also the reservoir for the 990 MW Kafue Gorge Plant located downstream of the proposed ITT project
- Sponsor is ITPC - 50/50 JV between ZESCO Ltd and Tata Africa
- First PPP in the energy sector in Zambia
- Power will be evacuated using a new 300 km 220/330kV Transmission Line

- **Project cost:** USD 231 M
- **AfDB Window** - $50 M towards debt in SPV
- **ADF Window** - $10 M towards ZESCO’s equity in SPV, and $30M towards the Transmission line financing
### Project Description
- 10,000 ha irrigated sugarcane to ethanol and power
- Roughly 85,000 m³ annual production
- Farmer development program for food production

### Business Strategy
- Ethanol to EU, electricity for domestic market
- Revenues: 75% ethanol, 25% power
- Core plantation initially, outgrowers added later

### Financing Structure
- Total cost: $340 million, 60/40 debt/equity
- Equity: Sponsor + DFIs
- Debt: DFIs
- AfDB role: Lender

### Benefits
- Strong job creation
- Renewable electricity supply
- Export generation
Our vision:
More and cleaner energy in Africa

Thank you!