Africa is lagging behind in terms of energy use, with limited access to electricity and biomass often remaining the main energy source.

### Power consumption per capita in Africa remains very low, especially in Sub-Saharan Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>Power consumption, Kilowatt hours/capita, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>12,954</td>
</tr>
<tr>
<td>Europe</td>
<td>6,520</td>
</tr>
<tr>
<td>South Africa</td>
<td>4,404</td>
</tr>
<tr>
<td>China</td>
<td>3,475</td>
</tr>
<tr>
<td>Brazil</td>
<td>2,462</td>
</tr>
<tr>
<td>North Africa</td>
<td>1,534</td>
</tr>
<tr>
<td>Africa avg</td>
<td>874</td>
</tr>
<tr>
<td>India</td>
<td>744</td>
</tr>
<tr>
<td>SSA excl RSA</td>
<td>181</td>
</tr>
</tbody>
</table>

### 640 million of Africans (53%) still have no access to electricity

Access to electricity, % of total population, 2013

- <25%
- 25% to 49%
- 50% to 75%
- >75%

### 730 million people in Sub-Saharan Africa rely on the traditional use of solid biomass for cooking

Households using solid biomass for cooking, % of total population, 2013

- Tier 1 <50%
- Tier 2: 50 to 69%
- Tier 3: 70 to 89%
- Tier 4: > 90%

SOURCE: WTO 2014, ECA, Global Insight
The business as usual scenario is untenable and the New Deal on Energy aspires to achieve universal access by 2025.

**Africa's access to electricity, % of population**

- **Business as usual**: 45% access by 2025
- **New Deal on Energy**: universal access by 2025
- **SDG7 goal**: universal access by 2030
- **Africa Power Vision**: 80% access by 2040
- **Business as usual**: 45% 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.

<table>
<thead>
<tr>
<th>From current energy situation in Africa</th>
<th>To universal access in 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population, $M$</td>
<td>1 174</td>
</tr>
<tr>
<td>GDP, $bn</td>
<td>2 175</td>
</tr>
<tr>
<td>Electrification rate, %</td>
<td>43%</td>
</tr>
<tr>
<td>Households connected, $M$</td>
<td>87</td>
</tr>
<tr>
<td>Grid</td>
<td>83</td>
</tr>
<tr>
<td>Off-grid</td>
<td>4</td>
</tr>
<tr>
<td>Grid capacity, GW</td>
<td>170</td>
</tr>
<tr>
<td>Consumption kWh/capita</td>
<td>613</td>
</tr>
<tr>
<td>Households using clean cooking, $M$</td>
<td>70</td>
</tr>
</tbody>
</table>

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
The New Deal on Energy will be driven around 4 objectives through 7 key themes; AfDB will champion 9 Flagship Programmes

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Themes</th>
<th>Flagship Programmes championed by AfDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling the system</td>
<td>Set up enabling policy environment</td>
<td>1 IPP procurement programme</td>
</tr>
<tr>
<td></td>
<td>Enable utilities for success</td>
<td>2 Power utility transformation programme</td>
</tr>
<tr>
<td>Getting projects financed</td>
<td>Dramatically increase number of bankable projects</td>
<td>3 Early stage project support facility</td>
</tr>
<tr>
<td></td>
<td>Increase funding pool to deliver new projects</td>
<td>4 Funding catalyst programme</td>
</tr>
<tr>
<td>Scaling up access</td>
<td>Fund bottom of the pyramid energy access programmes</td>
<td>5 Bottom of the pyramid financing facility</td>
</tr>
<tr>
<td>Delivering execution</td>
<td>Accelerate regional power integration</td>
<td>6 Mobile payment programme</td>
</tr>
<tr>
<td></td>
<td>Roll out waves of country-wide turnarounds</td>
<td>7 Regional projects acceleration programme</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 Country-wide energy sector turnarounds</td>
</tr>
</tbody>
</table>
New Deal for Energy for Universal Energy Access by 2025 - investment gap of 42 - 67 billion/year

Investment in energy vs requirement

<table>
<thead>
<tr>
<th>USD Bn</th>
<th>Current energy investment</th>
<th>Investment gap</th>
<th>Required energy investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD Bn</td>
<td>23</td>
<td>42-67</td>
<td>65-90</td>
</tr>
</tbody>
</table>

Investment gap

- Current energy investment: 23 USD Bn
- Investment gap: 42-67 USD Bn
- Required energy investment: 65-90 USD Bn

Private sector

- 11% (2.5) USD Bn

National Govts

- 33% (7.5) USD Bn

MDBs/DFIs

- 56% (12.5) USD Bn
Closing the Financial Gap

Increase National Energy Budgeting

- African governments to increase budgeting for Energy to be increased: 2-3% of GDP corresponding to 7.5-10% of fiscal revenues
- Reduce Energy subsidies in Africa were approximately 22x the investment in the energy sector by national governments

Attract private sector investment through:

- Indepth transformation of the power Sector and Power Utilities;
- Project derisking initiatives: Guarantee for large projects; establish PPP framework and predictable IPP bidding process; increase the performance and Bankability of the African Energy Sector
Closing the Financial Gap

Two Initiates of the Bank:

- **African Power Sector Bankability Index**
  - A sector development incentive and guide for governments;
  - A limited qualitative diagnostic and evaluation tool for the sector;
  - A progress monitoring tool;
  - A benchmarking Guideline for prioritizing transformative actions;
  - A decision-making tool for investors and development partners willing to start or enhance their involvement in the sector.

- **African National Budgeting Study: move away from donor-based financing**

Suggest a resolution on National budgeting for Energy energy
What has the Bank achieved in First year? (1)

- Establishment of the **Vice Presidency** and recruitment of the management team.

- **High level stakeholder consultations** and dialogue for political support of Heads of State and Government.

- 29 Energy Sector operations approved amounting to **US$ 1.7 billion** and leveraging **1.4 billion in additional financing** to deliver:
  - 546 MW of additional installed capacity
  - 21,264 km of distribution lines
  - 641 km of transmission lines
  - 688,950 new households / businesses receiving electricity access
  - 700,000 tonnes CO₂ avoided

- **Policy-based operations** for energy sector reforms started in 5 countries.
Examples of projects approved in 2016:

- USD 134 million for Phase II of the transformative Kenya Last Mile Connectivity Project, which will entail providing 300,000 new connections.
- USD 150 million for Côte d’Ivoire Power Transmission and Distribution Networks Reinforcement Project, which will construct over 3,000km of transmission and distribution lines and connect 20,000 households.
- Segou Solar IPP in Mali, which entails the design, construction and operation of a 33 MW solar PV power plant.
- Approval of a USD 500 million Debt Facility for Energy Inclusion with an initial Bank contribution of USD 100 million to focus on off-grid, mini-grids, and small scale independent power producers.

Increased project preparation support through the Sustainable Energy Fund for Africa (SEFA) and launch of the Green Mini-Grid Market Development Program.

Receipt of several key mandates, including to assist Mozambique, Tanzania and Zambia in their utility turnaround, and to act as lead arranger for key regional power projects, such as the 2400MW Batoka Gorge Hydropower project.
Focus areas of the New Deal going forward (1)

- Increased **private sector focus** for the Bank’s energy investments with a view to increase the leverage of available resources;

- Supporting **policy- and institutional-level reforms** in countries to improve the environment to increase private sector participation and strengthen utilities (e.g. IPP procurement programme; utility turnaround);

- Development of **access-focused programs** that would address power and clean cooking & lighting needs;

- Development of **regional projects** including Inga III and interconnections e.g. Nigeria-Niger-Burkina-Benin (“Northcore”), Guinea-Mali, and Cameroon-Chad;

- Market development activities in the oil & gas area and financing for specific project opportunities;

- **Strengthening existing partnerships** with multilateral, bilateral and African institutions and establishment of new strategic partnerships.

Focus areas of the New Deal going forward (2)

• Innovative financing instruments and approaches including:

  ✓ Establishment of a Co-Guarantee Platform for Renewable Energy Projects in Africa to achieve economies of scale and efficiency by aggregating the guarantees from multiple institutions into a single facility.

  ✓ Development of an approach to back PPAs without recourse to sovereign guarantees.

  ✓ Bringing in of capital from investors who are looking for stable returns from de-risked assets, i.e. energy projects that have been completed and are operating. We are currently working on a first such transaction: the refinancing of the Bujugali hydropower plant project in Uganda.

• Launching of the “Off-Grid Revolution” in close collaboration with partners, to focus on: (i) removing barriers; (ii) financing; (iii) managing risks.

• Establishment of dedicated funds and lines of credit in support of energy efficiency and small-scale renewable energy projects.
Looking ahead

- AfDB has pledged to commit **US$ 12 billion** by 2020 of its resources to leverage another **US$ 45 – 50 billion**;

- Over 50 energy sector projects (public and private) in current 2017 pipeline amounting to **US$ 5 billion** in potential Bank financing.

- Some key energy projects, such as the 310 MW **Lake Turkana wind project** are expected to reach completion in 2017.

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**Envisaged outputs in 2017**

- **2 GW of power capacity**
- **2,500 km of transmission lines including regional interconnections**
- **1,250 km of distribution lines**
- **500,000 solar home systems**
Let us work together to light up and power Africa

Thank you!