Presentation by the Republic of Zambia on the Implementation of the IPoA

Focus on Promoting Sustainable Energy

Presented to the Meeting of UNLDC Focal Points, November 2019
Overview

Where Zambia is coming from

- traditionally hydro-electricity dependent
- Inadequate investment into the electricity sector since the 1970’s when overall supply capacity was higher than demand
- However, by 2008, demand had exceeded supply capacity leading to the first country-wide power cuts

2008 - Wake up call to the need for investment to increase electricity generation capacity

- Leading to the need for policy, regulatory and public investment interventions.
- During review period, electricity demand growing at 4 percent per annum due to increased economic activity in agriculture, manufacturing and the mining sector.
- Government therefore has increased investment in power generation
- Also in efforts to promote private investment in power generation
Key Developments, 2011-2019

- Overall Focus: to ensure adequate and reliable supply of energy

- National electricity generation increased from 1,767 Mw in 2011 to 2,974.7 Mw in 2018 representing a growth of 68 percent in electricity generation capacity.
Key Developments, 2011-2019

- Electricity Diversified from 99 percent hydro in 2011 to 80 percent in 2019
By July 2019, number of customers connected to the grid reached 1 million

**HOUSEHOLD’S CONNECTIVITY TO ELECTRICITY BY RESIDENCE, ZAMBIA, 2010 AND 2015**

- **TOTAL**: 947,708.00
  - 2010: 545,529.00
  - 2015: 497,179.00
- **RURAL**: 72,700.00
  - 2010: 72,700.00
  - 2015: 72,700.00
- **URBAN**: 872,631.00
  - 2010: 472,230.00
  - 2015: 399,531.00

By July 2019, number of customers connected to the grid reached 1 million
# Electricity Generation

<table>
<thead>
<tr>
<th>Target</th>
<th>Action taken to achieve target</th>
<th>Results or impact</th>
<th>Lessons learned</th>
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<tbody>
<tr>
<td>1. Increase electricity generation capacity to 2,908.75 MW in 2020</td>
<td>Undertake public investment to increase electricity generation capacity (i.e. uprating of existing and new projects) Promotion of private sector investment in electricity generation incl off-grid e.g: - 405MW thermal - 56 MW mini hydros</td>
<td>Electricity generation capacity increased from 1,767 Mw in 2011 to 2,974.7 Mw in 2018 Increased in electricity generation from 11,858,460 MWh in 2011 to 16,000,000 MWh in 2018. Support to increased economic activity</td>
<td>Always plan and invest if generation capacity higher than current demand. Public investment alone is not adequate. Private sector investment is necessary to meet the desired capacity.</td>
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## Access

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<td>2. Increase access to electricity</td>
<td>Rural Electrification Programme: - 9 Grid Extension Projects - 1 mini hydro power</td>
<td>% households connected to electricity at national level rose from 22 % in 2010 to 31 % in 2015</td>
<td>Every little investment country – mini power facilities can greatly contributed to increasing access to electricity, promote it.</td>
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<td>Introduction of new mini hydros to the grid</td>
<td>1 million customers connected to the national grid in June 2019</td>
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<td>Promotion of off-grid mini hydros</td>
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### Renewable Energy

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| 3. Increase the share of electricity generation through renewable energy sources by 2020 | Promotion of alternative renewable energy sources e.g. solar  
- The Renewable Energy Feed-in Tariff (REFiT) Strategy launched in 2017  
- In 2018, implementation of Global Feed-in-Tariff (GETFiT) to reduce barriers for small renewable energy projects of up to 20MW  
- In 2019 development and launch of Resource Atlas (Solar and Wind) to provide information for prospective investors in solar | 1 MW mini-hydro powerplant in 2012 in Shiwang’andu, Chinsali District of Muchinga Province  
60 kW solar project in 2013 in Mpanta, Samfya District of Luapula Province  
1 MW solar plant, in riverside Kitwe District of the Copperbelt province  
54 MW Bangweulu solar project in 2019 in Lusaka  
35MW Ngonye solar in 2019 in Lusaka | In the face of climate change and its impact on our hydro dependence, there is need to scale up efforts to other renewable sources beyond hydro.  
Successes so far on solar show that this is replicable and scalable  
Private sector investment can greatly complement Government efforts. |
## Policy and Regulatory Reforms to Promote Private Sector Investment in Electricity Sector

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<td>4. Increase private investment in the electricity sector</td>
<td>SI No. 79 of 2013 allowing entities other than national utility to connect to or use the electricity transmission system</td>
<td>These reforms are yet to be fully materialize and lead to private sector</td>
<td>There is need for continued reform to allow private sector:</td>
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<td>SI No. 15 of 2011 (ZDA) building of mini-hydrlos, solar, thermal and hydropower plants eligible to fiscal incentives</td>
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<td>- open access regimes now possible</td>
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<td>REFiT Strategy (2017) also promotes private investment in electricity sector</td>
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<td>- Full cost reflectivity</td>
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<td>In 2017, policy decision on removal of subsidies by migration to cost reflective electricity tariffs and 2 major tariff adjustments up to 75 percent cost reflectivity</td>
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<td>- Promote investment in other technologies</td>
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<td>In 2018, implementation of Global Transfer Feed-in-Tariff (GETFiT) to reduce barriers for small renewable energy projects of up to 20MW</td>
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<td>- Supportive regulatory regime</td>
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<td>- Reforms to allow a supportive market structure for IPPs.</td>
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<td>These are being done in 2019</td>
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