BATOKA GORGE HYDRO ELECTRIC SCHEME

Project Location
Zambezi River, 47km downstream of Victoria Falls

Owners & Project Sponsors
Government of Zambia
Government of Zimbabwe

Implementing Partners
Zambezi River Authority
Zimbabwe Electricity Supply Authority
Zambia Electricity Supply Corporation
Southern African Development Community

Regional Economic Community
Regional Economic Community
PRESENTATION OUTLINE

- Brief overview of the Zambezi River Authority
- Development of the BGHES
- Implementation Status of the BGHES
- Required Financing
The Zambezi River Authority

- A bilateral organisation, owned on a 50/50 basis by the Republics of Zambia and Zimbabwe.
- Was established by an Act in both parliaments of Zambia and Zimbabwe on 31 October, 1987.
Governance Structure of ZRA

Council of Ministers
Ministers of Energy & Finance
Zambia – Zimbabwe
Attorneys General

Overall Policy Direction

Policy, Control and Overall Management

Executive Management

Chief Executive

Board Secretary/Corporate Services Director

Director Finance

Director (Water Resources and Environmental Management)

Director (Projects & Dam Safety)
DEVELOPMENT OF BATOKA GORGE HYDRO-ELECTRIC SCHEME

Affordable and Clean Energy – Increase access to affordable, reliable, sustainable and modern energy
Location

Batoka Gorge Site

- BGHES Project studies commenced back in 1972
- Revisions and updates of studies have been done since then
- Located within the central portion of the Zambezi River Basin
- Upstream of the existing Kariba Dam
- 47km downstream of Victoria falls
PROJECT FEATURES

• Roller Compacted Concrete Gravity Arch Dam
  • 181m high, 720m long;
  • Radial gated crest type spillway;

• 1.680 x 10^9 m^3 reservoir capacity at Full supply Level
• 25.6 km^2 surface area at Full supply Level

• Two surface power plants of 1,200 MW on each bank, with a combined capacity of 2,400 MW;
  • 6 x 200 MW Francis turbines in each powerhouse;
  • 4 intake tunnels each about 1 km long

• Transmission lines: 330 kV x 420 km in Zambia and 400 kV x 470 km in Zimbabwe
The project will be developed as a **publicly financed and owned dam** with **separate SPVs** for the financing, construction and operation of the power plants.
REQUIRED PROJECT FINANCING

Financing of the Preparatory Studies

- There are three preparatory studies
  - Updating of Engineering Feasibility studies
  - ESIA
  - LFTAS

- Preparatory studies are being co-financed by the World Bank ($6m) and the Authority

- Required financing to completion of preparatory studies estimated at $13.7m

- The AfDB is mandated lead arranger for financial mobilisation and assisting with financial mobilisation
# Financing of the Dam and Power stations

<table>
<thead>
<tr>
<th>Item</th>
<th>Financing amount (US$ million)</th>
<th>Financed by</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dam (including spillway and intakes)</td>
<td>$2,139m</td>
<td>Government of Zambia &amp; Government of Zimbabwe</td>
<td>DFI/MDB debt, grants and other sources of debt</td>
</tr>
<tr>
<td>North Bank Power Plant (including transmission &amp; waterways on North bank)</td>
<td>$732m</td>
<td>Equity $220m (30%)</td>
<td>Financing arranged by North Bank Power Company</td>
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<tr>
<td>South Bank Power Plant (including transmission &amp; waterways on South bank)</td>
<td>$732m</td>
<td>Equity $220m (30%)</td>
<td>Financing arranged by South Bank Power Company</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$3,603m</strong></td>
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Thank You