Zimbabwe’s Coal Industry
Past, Present and Future
THE BACKGROUND 1
- Zimbabwe’s Economy

GDP (purchasing power parity):
$7.496 billion (2013 est.)

GDP - per capita:
$600 (2013 est.)
- on a par with Somalia and the DRC

Government budget for 2015:
$3.5 billion
>80% of revenue to pay its employees
- *Zimbabwe’s Economy*

  - **Total Population:**
    - 15 million (2013 est.)

  - **Diaspora:**
    - 3 million (2013 est.)

  - **Annual diaspora Remittances:**
    - $1.5 billion (2014 est.)

  - **Annual Development Assistance:**
    - $1 billion (2014 est.)

  - Debt to World Bank, ADB and IMF is >$1.2 billion. Support ended in 2000.
THE BACKGROUND 3

- Zimbabwe’s Economy

- **State Power Utility ZESA Holdings:**
  Unserviced debt of $800 million, current liabilities $1.1 billion (2013)

- **Power Demand:**
  > 2100MW

- **Average available Capacity:**
  +/- 1100MW

- **Average Power Outages:**
  > 4 hours daily
THE BACKGROUND 4
- Zimbabwe’s Economy
ZIMBABWE’S COALS

<table>
<thead>
<tr>
<th>COAL AREA</th>
<th>RESOURCES* MILLIONS OF TONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hwange Area</td>
<td>2,101</td>
</tr>
<tr>
<td>Lubimbi Area</td>
<td>3,012</td>
</tr>
<tr>
<td>Other Zambezi Basin</td>
<td>4,497</td>
</tr>
<tr>
<td>Save-Limpopo Basin</td>
<td>644</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>10,254</strong></td>
</tr>
</tbody>
</table>

*Barber 1993. Open-cast, 3.5 bcm/t stripping ratio.
## The Hwange Area Coal Resources and Their Owners (Millions of Tons)

<table>
<thead>
<tr>
<th>Area</th>
<th>Tons</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hwange</td>
<td>418</td>
<td>Hwange Colliery Co.</td>
</tr>
<tr>
<td>Chaba</td>
<td>103</td>
<td>Hwange Colliery Co.</td>
</tr>
<tr>
<td>Western Areas</td>
<td>952</td>
<td>Not assigned</td>
</tr>
<tr>
<td>Entuba</td>
<td>532</td>
<td>Makomo Resources</td>
</tr>
<tr>
<td>Sinamatella</td>
<td>96</td>
<td>Liberation Mining (closed)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2101</strong></td>
<td></td>
</tr>
</tbody>
</table>
ZIMBABWE’S COAL OUTPUT

ZIMBABWE COAL OUTPUT (Estimates Chamber of Mines and Pers. Comm.)

- Hwange
- Makomo
- Total

Tons/Annun

1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2014 Est
WHY ONLY THE HWANGE AREA?
BECAUSE IT HAS THE BEST COAL QUALITY FOR THIS OPTION -
THE PRINCIPAL PLAYERS AND THEIR RESOURCES

- Hwange Colliery Company Ltd - Hwange and Chaba
- Makomo Resources (Pvt) Ltd - Entuba
- China Africa Sunlight Energy Company (Pvt) Ltd (Caseco) - Lubimbi
- P.E.R. Group Ventures (Pvt) Ltd - Lusulu
HWANGE COLLIERY – a very old mine

- Discovered in 1899
- First coal sold in 1904
- Underground mining only until 1967
- Loss of main u/g (No. 2) colliery in 1972 – explosion with 472 lives lost
- Principally opencast operations thereafter
- Serves (nominal) 920MW power station
- Decline in output (5Mt to 1Mt) now stemmed
UNDERGROUND AT NO. 2 COLLIERY IN 1936
MAKOMO RESOURCES
- a major new player

- Founded in 2010
- Mines the Entuba section of the Hwange coalfield
- Takes up the gap in power station supply left by Hwange
- Washery installed in 2013
- Working up to 350,000 tpm overall
- Plan to build 600MW power station
CASECO

- massive but low grade resource

- Based on the Lubimbi coalfields
- These were shown in the 1970s to have 3 billion tons of largely open-castable coal
- However, limited coking coal compared to the Hwange seam
- Planning to build a 600MW power station to take the non-coking coal fraction
- Water requirement to be supplied from the new Gwayi-Shangani dam
P.E.R. Group

- Based on the Lusulu coalfield
- A resource of about 1.9 billion tons
- Quality is middling, with limited coking coal
- Current plan is to build a 2000MW power plant only
- Economically feasible because using the equipment available from mothballed French power stations
- Site will be on the shore of Lake Kariba; coal will be conveyed to it
OTHER POTENTIAL AND MINOR PLAYERS

- Sengwa – 1.5 billion tons of non-coking coal in a remote area, mine closed
- Steelmakers Chiredzi – poor quality but shallow coal being used for the production of semi-reduced iron ore at Masvingo
- Tuli Coal – poor quality but shallow coal being used for local consumption
## Plans for Power Coal in Zimbabwe...

<table>
<thead>
<tr>
<th>Entity</th>
<th>Power Station Type</th>
<th>Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZESA</td>
<td>Hwange power station extension</td>
<td>600</td>
</tr>
<tr>
<td>Makomo Resources</td>
<td>Own power station</td>
<td>600</td>
</tr>
<tr>
<td>CASECO</td>
<td>Own power station</td>
<td>600</td>
</tr>
<tr>
<td>P.E.R.</td>
<td>Own power station</td>
<td>2000</td>
</tr>
<tr>
<td>ZESA</td>
<td>Existing power stations</td>
<td>1100</td>
</tr>
<tr>
<td></td>
<td>Total - equivalent to about 20 Mt/a of coal</td>
<td>4900</td>
</tr>
</tbody>
</table>
THE GOOD NEWS...

All these are dreams at present but there is 300MW of hydroelectric power actually being installed at Kariba now.

Thank Heavens!

...and Thank You