This document has been prepared to provide stakeholders with background information on the proposed hydropower development on the Lunsemfwa and Mkushi Rivers. Further stakeholder consultation will be undertaken as part of the Environmental and Social Impact Assessment (ESIA) process.

This BID provides:

- a brief background and introduction to the proposed project;
- an introduction to and approach for the Environmental and Social Impact Assessment (ESIA);
- details of the Stakeholder Consultation Process for the ESIA; and
- an invitation for public involvement throughout the ESIA.

For any information about the project or the ESIA process, Interested and Affected Parties can contact:

**Contact: Geoffrey Siame**

**African Mining Consultants (AMC)**

1564/5 Miseshi Road
P. O. Box 20106, Kitwe
Fax: +260 2 12 211104
Tel: +260 2 12 211108
Email: environmental@amc-africa.com

---

### Background to the Proposed Hydropower Development on the Lunsemfwa and Mkushi Rivers

Muchinga Power Company Limited (MPC) (a joint venture between Lunsemfwa Hydro Power Company Limited (LHPC) and eleQtra (InfraCo) Ltd) intends to develop a 255 MW hydropower project (HPP) on the Lunsemfwa and Mkushi Rivers in the Mkushi District, located in the Central Province of Zambia. The Muchinga Hydropower Project (the Project) will consist of the development, financing, construction, operation, management and maintenance of a new electricity generation hydro-power station.

---

### Environmental License

MPC are required to obtain an Environmental License, in terms of the Environmental Protection and Pollution Control Act, CAP 204 (No.12 of 1990) before construction may commence.

To obtain the Environmental License, MPC must undertake an Environmental and Social Impact Assessment (ESIA).

MPC has appointed Environmental Resources Management (ERM) and African Mining Consultants (AMC) to undertake the ESIA on their behalf.

In addition to Zambian legal requirements, the ESIA will also conform to international standards and best practices, in particular the requirements of the World Bank Group, International Finance Corporation (IFC) and the Equator Principles.
PROJECT DESCRIPTION

PROJECT LOCATION

The proposed 255 MW hydropower project will be located approximately 70km to the east of Kabwe in the Central Province of Zambia, on the Lunsemfwa River, approximately 35 km downstream of the Mita Hills Dam and 25 km downstream of the existing Lunsemfwa Hydropower plant.

MAIN PROJECT ELEMENTS

The Project would comprise the following main elements:

- Construction of a canal and approximately 16km of underground headrace tunnels (components 31, 3 and 5 of Figure 1.1) linking the Lunsemfwa and Mkushi Rivers;
- Construction of a dam on the Mkushi River with an expected reservoir area of 5 Km² (component 4 of Figure 1.1);
- Construction of a penstock (component 6 of Figure 1.1);
- Construction of an open-air power house with an installed capacity of 255 MW, downstream of the confluence of the Lunsemfwa and Mkushi Rivers (component 7 of Figure 1.1); and
- Transmission lines from the Kandulwe site and the Muchinga Power Station to the national grid (a distance of approximately 75km).

PROJECT OVERVIEW

The Muchinga HPP will exploit the hydropower potential of the Lunsemfwa river, along a 25 km stretch from the operating Lunsemfwa HPP and to the Muchinga escarpment. The Lunsemfwa river flow, regulated by the Mita Hills dam, will be transferred to the Mkushi river basin through a waterway (canal and low pressure tunnel) which will be about 16 km in length to the newly created Mkushi Dam. (See Figure 1.1).

Muchinga HPP will also exploit the hydropower potential of the Mkushi river which joins the Lunsemfwa river at Bell Point. The flows of both the Lunsemfwa river and the Mkushi river will be transferred to the powerhouse through a low pressure tunnel, about 6 km long, ending with steel penstocks.

A transmission line will connect from the Muchinga powerhouse to a substation near Kabwe which will be approximately 75 km in length.
What is an ESIA?
An Environmental and Social Impact Assessment (ESIA) is undertaken to improve the environmental performance of a development, and to assist in government decision-making in issuing the environmental license.

Specific objectives of the ESIA are to:
- Meet in-country legal requirements and international best practice;
- Identify and assess potential environmental and social impacts, as a result of the project, both negative and positive;
- Avoid, minimise, or mitigate negative impacts while maximising the positive spin-offs;
- Ensure consultation with stakeholders, in order that their views are incorporated into the ESIA.
- Promote improved environmental and social performance through better planning and management.

Key Steps in the ESIA
The ESIA is divided into 5 key phases, namely:
1. Scoping
2. Baseline Studies
3. Impact Assessment
4. Reporting
4. ESIA Disclosure

This project is currently in the Scoping Phase.

What is Scoping?
Scoping is undertaken to identify potential impacts, to engage with local communities and other Interested and Affected Parties, and to define the Terms of Reference (ToR) for the ESIA. Scoping is undertaken at an early stage of the project to ensure that the ESIA provides all the relevant information on:
- the potential impacts of the project, and
- project alternatives.

The findings of a Scoping Study will help to determine the extent of the ESIA including:
- Defining the project’s ‘area of influence’,
- Specialist studies that are required,
- Focus and methodology for the impact assessment, and
- Development of Management Plans.
Stakeholder Consultation Process

Stakeholder Consultation is considered one of the key tasks of the ESIA, with the objective of:

- Ensuring that all stakeholders are included in the consultation and disclosure process;
- Ensuring that initial information disclosure about the project is appropriate and comprehensible to non-technical stakeholders and the local population;
- Ensuring that adequate and timely information is provided to project-affected people and other stakeholders;
- Ensuring that all stakeholders are given sufficient opportunity to voice their opinions and concerns;
- Ensuring that these opinions and concerns influence project decisions;
- Ensuring that regular feedback is provided to project-affected people; and
- Ensuring that effective communication will continue during the construction and operational phases of the proposed project.

The importance of effective and broad public participation in the ESIA process cannot be overstressed.

The MPC and the ESIA Team are committed to active and ongoing communication with all communities, organisations, groups, and individuals with an interest in the Muchinga HPP Project.

How can you be involved?

- By attending public meetings held during the ESIA process (these will be advertised);
- By visiting the project website (http://www.erm.com/MuchingaHPP);
- By telephonically contacting AMC for further information; and
- By reviewing draft reports when you are invited to do so within the timeframes provided.

Please ensure that you are registered on the project database by completing the attached Registration & Comments Form and send it to the contact provided. Registration will ensure that you receive ongoing communication about the ESIA process, including meeting invitations, project updates, and invitations to review the draft reports.
MUCHINGA HPP ESIA
REGISTRATION & COMMENTS FORM

Please register me as a stakeholder to receive ongoing communication about the Environmental Impact Assessment (ESIA) process and the proposed project:

<table>
<thead>
<tr>
<th>Name:</th>
<th>Telephone:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation:</td>
<td>Fax:</td>
</tr>
<tr>
<td>Designation:</td>
<td>E-mail address:</td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
</tbody>
</table>

Comments and issues of concern:

Please submit the Registration & Comments Form to:

Contact: Geoffrey Siame
African Mining Consultants (AMC)

1564/5 Miseshi Road
P. O. Box 20106, Kitwe
Fax: +260 2 12 211104
Tel: +260 2 12 211108
Email: environmental@amc-africa.com