



## Environmental Management Plan (EMP) for the Matshelagabedi Solar Project

# PROJECT BACKGROUND INFORMATION DOCUMENT & OPPORTUNITY TO REGISTER COMMENTS

## ENVIRONMENTAL MANAGEMENT PLAN (EMP) FOR THE CONSTRUCTION OF A 100 MEGAWATTS (MW) PHOTOVOLTAIC (PV) SOLAR PARK PROJECT NEAR MATSHELAGABEDI

### **Background**

Coal Petroleum (Pty) Ltd is an innovative energy company, working in an environmentally responsible way, to support the continued economic growth of Botswana by taking major steps towards the energy independence of the country. To attain this, Coal Petroleum (Pty) Ltd is intending to construct a solar park near Matsiloje and Matshelagabedi villages; which will incorporate the use of the latest generation of tracking Photovoltaic technology, to maximize the extraction of energy from the sun.

Coal Petroleum is looking to trade energy as part of the Southern African Power Pool and not necessarily sell power to Botswana Power Corporation (BPC). However, Coal Petroleum has an agreement with BPC for sharing of information in relation to the project.

### **Project description**

The proposed project entails the construction of a Solar Park near Matsiloje and Matshelagabedi villages. The Project will be a 100 megawatts (MW) photovoltaic (PV) solar park that will be on a project site of 295 hectares. This will be achieved by the construction of horizontally mounted single axis tracker PV solar panels; and thereafter the generation of approximately 100 MW of alternating-current (AC) electricity. The panels will be bifacial. The PV panels will be placed in a North-South orientation and tracking from the east to the west. This will also include construction of project infrastructure including project substation, internal road network, perimeter fencing, and project cabling. Auxiliary buildings, including administration/office and security buildings, project control room and workshop, ablution/change room, will be constructed on the site and will have an approximate footprint 400m<sup>2</sup> or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. The project will also include a 33kV interconnection line of about 500m in length connecting to the neighbouring

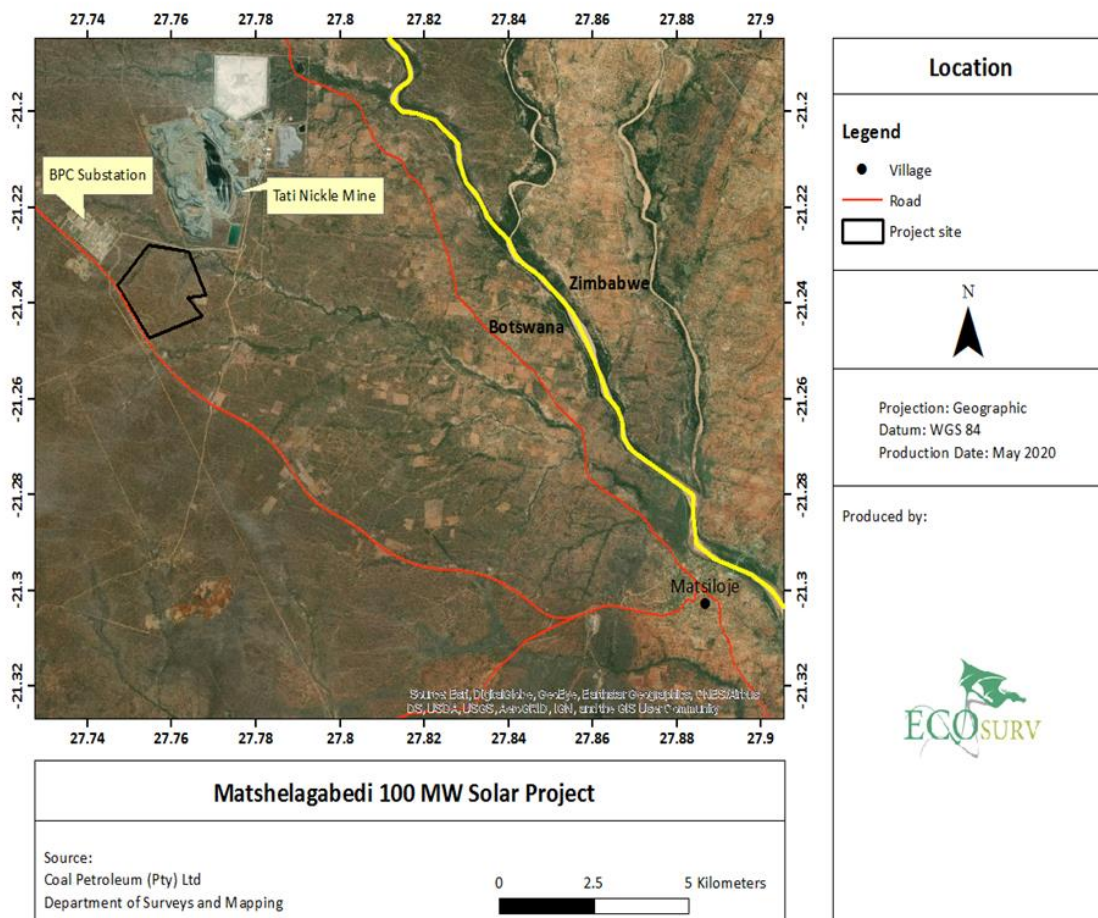
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Matshelagabedi substation. For health, safety and security reasons, the facility will be required to be fenced off from the surrounding areas.

The construction and decommissioning periods are expected to take 12 months respectively. The intended period of operation is 30 years from Commercial Operation Date. The project will consist of the following components, amongst others: solar photovoltaic modules; inverters and combined inverter stations and their compliance with local grid code requirements; mounting/ tracking systems; and transformers (LV/MV, MV/HV and auxiliary).

### Project Location

The project area is near Matshelagabedi and Matsiloje village in the North East District of Botswana. The project is on industrial land in between Tati Nickel Mine, a tailings dam, a diesel power plant and BPC sub-station. The map below reflects the location of the proposed project.



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### **Environmental Management Plan Process**

In line with the Environmental Assessment (EA) Act, Coal Petroleum has commissioned Ecosurv Environmental Consultants to undertake an Environmental Management Plan for the project. The EMP will form the basis for environmental authorisation of the project by the authorities. The EMP will also conform to the EA Act of 2010 which entails the following approach:

#### **Situational Analysis Phase**

This phase entails the collection of all relevant data and undertaking a field reconnaissance by the key team members (comprising of an Environmentalist, Archaeologist and Sociologist) to gather baseline information for the study. Consultations with relevant stakeholders (Interested and Affected Parties) will be conducted as part of the sociological assessment. Outputs of the situational analysis phase will be identification of issues and impacts resulting from the proposed project.

#### **Environmental Management Plan**

This final stage will begin with the assessment of identified impacts and the development of mitigation measures to address the negative impacts and enhance positive impacts. A management plan will be developed to ensure that mitigation measures are effectively implemented during construction, operation and decommissioning phases of the project. Monitoring requirements will also be included in the report. The EMP will be prepared guided by the format as prescribed in the Environmental Regulations of 2011.

#### **Authorisation of the EMP**

Upon completion of the final EMP and this having been reviewed by the Client, the report will be submitted to the Department of Environmental Affairs for review and authorisation. The approved draft EMP may be subject to public review for four consecutive weeks, unless exempted by DEA. The legal time frame for this DEA authorisation is 60 days.

### **Potential impacts**

The project is anticipated to yield both negative and positive impacts. The positive impacts include the provision of local electrical infrastructure for use in long-term, and the provision of business and employment opportunities during the construction and operation phases for members of local communities. The negative impacts include the following:

- ❖ Localised impacts on vegetation and soil;
- ❖ Noise pollution;

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- ❖ Dust Pollution; and
- ❖ Potential exposure of sub-surface remains during the construction period. These are expected to be limited to the development footprint.

### **Proposed impact mitigations**

Some of the following measures will be adopted to address the negative impacts:

- ❖ Regularly servicing of equipment during construction to ensure there are no oil leakages onto the environment and regularly servicing equipment to ensure noise levels are reduced;
- ❖ Noise generation will be kept minimum and construction activities be confined to daytime (0600 to 1800 hrs on workdays);
- ❖ A qualified SHE officer will be employed and all site works will be carried out following set standard operating procedures;
- ❖ Should any archaeological material be discovered during construction, the project manager should safeguard these (preferably in situ) and report the find immediately, so that they are not disturbed further until the necessary guidance and approval have been obtained and the appropriate action (e.g. recording, sampling or collection) can be taken by a registered archaeologist;
- ❖ The most important dust control measure is achieved by maintaining as much of the vegetative cover as possible; and
- ❖ Construction vehicles must adhere to speed limits and minimization of haul roads must be implemented. During dry, dusty periods haul roads should be kept dampened to prevent excess dust.

### **Invitation to Participate**

Anyone who is interested or affected by the project has the right to participate in the EMP process. Please make use of the following opportunities:

- ❖ Study the information made available in this Background Information Document (access BID at [www.ecosurv.com](http://www.ecosurv.com) );
- ❖ Contact the consultations team to obtain further project information, and/or raise issues and concerns (contact details provided on the attached comments sheet);
- ❖ Register as an Interested and Affected Party in order to receive future project information and/or formally record issues and concerns; and
- ❖ Complete the Comment Sheet (attached) and return by hand, mail, fax or e-mail.

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### Parties Involved in the Process

The parties involved in the process include the following:

Stakeholder list*	Reason for identification	Mode of Consultation	Date of Consultation
Matsiloje community	Community within the vicinity of the project area.	Focus Group Discussion with the Village Leadership	16 <sup>th</sup> June 2020
Matshelagabedi Community	Community within the vicinity of the project area.	Focus Group Discussion with the Village Leadership	17 <sup>th</sup> June 2020
Other key stakeholders to be consulted include the following: <ul style="list-style-type: none"> <li>❖ Tati Land board</li> <li>❖ Physical Planning Unit</li> <li>❖ Roads Unit</li> <li>❖ The Department of Waste Management and Pollution Control;</li> <li>❖ The Department of Energy;</li> <li>❖ Regional Agricultural Office;</li> <li>❖ The Department of Roads;</li> <li>❖ Water Utilities Corporation;</li> <li>❖ The Department of Water and Sanitation;</li> <li>❖ Botswana Power Corporation (BPC); and</li> <li>❖ Botswana Energy Regulatory Authority (BERA).</li> </ul>	Positioned to advise on the planning implications of the proposed project.	A Background Information Document (BID) with a Comment Sheet will be sent to stakeholders for registry of issues and concerns.	TBA

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❖ Tati Nickel	Adjacent to the project area (neighbour)	A BID with a Comment Sheet will be sent for registry of issues and concerns.	TBA
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*\* Preliminary stakeholder list*

**Participation in the EMP Process**

Your issues, concerns and comments will demonstrate your participation in the proposed development. It will also help to focus the EMP and enhance the quality of the decisions taken by the authorities. Please participate.



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**COMMENT SHEET**

Please complete and return to: **Carol S. Pansiri**

<b>Postal address:</b>	P. O. Box 201306 Gaborone
<b>Telephone number:</b>	3161533
<b>Fax number:</b>	3161878
<b>E-mail:</b>	<a href="mailto:carol@ecosurv.com">carol@ecosurv.com</a>

Please fill in your personal details below:

TITLE		NAME	
ORGANISATION			
DESIGNATION			
ADDRESS			
DATE			
TEL NO		FAX NO	
CELL NO		E-MAIL	

**COMMENTS** (Please use additional sheets if you wish)

1. State any issues or concerns that you feel should be considered as part of the EMP.

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2. Any other comments:

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3. Please reflect interested and affected parties you feel should be consulted for this project (if any):

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**Thank you for your participation!**