



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Environment House · 473 Steve Biko Road, Arcadia · PRETORIA

DFFE Reference: 14/12/16/3/3/1/2601

Enquiries: Ms Bathandwa Ncube

Telephone: (012) 399 9368 **E-mail:** BNcube@dffe.gov.za

Ms Andrea van Gensen
Eskom Holdings SOC Ltd
P.O. Box 606
KIMBERLEY
8300

Telephone Number : 053 830 5730
Cellphone Number : 082 482 7579
Email Address : vGenseAL@eskom.co.za

PER EMAIL / MAIL

Dear Ms Van Gensen

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: DEVELOPMENT OF A BATTERY ENERGY STORAGE SYSTEM (BESS) AND ASSOCIATED INFRASTRUCTURE AT THE CUPRUM SUBSTATION NEAR THE TOWN OF PRIESKA, IN THE SIYATHEMBA LOCAL MUNICIPALITY, NORTHERN CAPE PROVINCE

With reference to the above application, please be advised that the Department has decided to grant authorisation. The Environmental Authorisation (EA) and reasons for the decision are attached herewith.

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 14 (fourteen) days of the date of the decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, Act No. 3 of 2000, you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, Act No. 4 of 2013 which stipulate that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuse or compromise your personal information in any way.

Your attention is drawn to Chapter 2 of National Environmental Management Act, Act No. 107 of 1998 National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribes the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appeals@dfpe.gov.za;

By hand: Environment House
473 Steve Biko Road
Arcadia
Pretoria
0083; or

By post: Private Bag X447
Pretoria
0001

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.dfpe.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appeals@dfpe.gov.za.

Yours faithfully



Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment
Date: 08/05/2023

CC:	Ms Sarah Caulfield	AECOM SA (Pty) Ltd	Email: Sarah.caulfield@aecom.com
	Mr Bryan Fisher	Northern Cape DAEALR&RD	Email: bfisher@ncpg.gov.za
	Mr Isaac Stafhouer	Siyathemba Local Municipality	Email: mm@siyathemba.gov.za



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014, as amended

The development of a Battery Energy Storage System (Bess) and associated infrastructure at the Cuprum Substation near the town of Prieska, in the Siyathemba Local Municipality, Northern Cape Province

Pixley Ka Seme District Municipality

Authorisation register number:	14/12/16/3/3/1/2601
Last amended:	First issue
Holder of authorisation:	Eskom Holdings SOC Ltd
Location of activity:	Portion 1 of Farm Vogelstruis Bult 104; Portion 5 of Farm Vogelstruis Bult 104; Portion 25 of Farm Vogelstruis Bult 104; Ward 4; Siyathemba Local Municipality; within the Pixley Ka Seme District Municipality, Northern Cape Province.

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this Environmental Authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this Environmental Authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, Act No. 107 of 1998, as amended and the EIA Regulations, 2014, as amended.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment Regulations, 2014, as amended, the Department hereby authorises –

ESKOM HOLDINGS SOC LTD

(hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Ms Andrea van Gensen
Eskom Holdings SOC Ltd
P.O. Box 606
KIMBERLEY
8300

Telephone Number : 053 830 5730
Cellphone Number : 082 482 7579
Email Address : vGenseAL@eskom.co.za

to undertake the following activities (hereafter referred to as “the activity”) indicated in Listing Notice 1 of the EIA Regulations, 2014 as amended:

Activity number	Activity description
<p><u>Listing Notice 1, Item 11:</u> <i>The development of facilities or infrastructure for the transmission and distribution of electricity– (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts.</i></p>	<p>The development will include realignment of the existing Cuprum/Karoo 66kV and Cuprum/Kronos 11kV overhead lines to make provision for the BESS and substation expansion.</p>
<p><u>Listing Notice 1, Item 14:</u> <i>The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic meters or more but not exceeding 500 cubic meters.</i></p>	<p>The establishment of the 70MW/ 240MWh BESS may result in the storage of dangerous goods. At this stage, it is uncertain whether the batteries will be fully assembled and/or whether the electrolyte will be stored in a container. As such, a worst-case scenario is assumed where the battery assembly will only take place on site, with the electrolyte to be stored in a container on site during the construction phase. This listed activity will, therefore, be triggered.</p>
<p><u>Listing Notice 1, Item 27:</u> <i>The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation.</i></p>	<p>The development of the BESS and associated infrastructure will result in the clearance of approximately 53 000m² (5.3 hectares) of indigenous vegetation. This will exceed the threshold of 1 hectare to be cleared, therefore the listed activity will be triggered.</p>

As described in the Basic Assessment Report (BAR) dated January 2023 at:

Farm Description	21 Digit Surveyor General Code																					
Portion 1 of Farm Vogelstruis Bult 104	C	0	6	P	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	1
Portion 5 of Farm Vogelstruis Bult 104	C	0	6	P	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	5
Portion 25 of Farm Vogelstruis Bult 104	C	0	6	P	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	2	5	

- for the development of a Battery Energy Storage System (BESS) and associated infrastructure at the Cuprum Substation near the town of Prieska, in the Siyathemba Local Municipality, Northern Cape Province, hereafter referred to as “the property”.

The development activities include the following:

- Re-alignment of the Cuprum/Karoo 66kV and Cuprum/Kronos 11kV overhead lines along the peripheries of the Eskom property boundary to make provision for the BESS and substation expansion;
- Extension of the Cuprum Substation’s fence around the substation to include the BESS area;
- Extension of the Cuprum Substation’s 132kV busbar to make provision for the new transformer which will extend the substation on the south-western side;
- Placement of the BESS control panels in an existing building located within the Cuprum Substation;
- Establishment of the BESS containers on a cleared area and connection to Eskom grid infrastructure;
- Extension of the existing road by 260 m which will connect to the runway inside the Cuprum Substation; and
- Rerouting of a 350 m water pipeline with a diameter of 32 mm.

Technical details of the development:

Component	Description/ Dimensions
BESS Footprint	195 m x 130 m (at its widest point) = 20 705 m ²
BESS Capacity	70 MW/280MWH/ useable capacity
BESS Technologies	<ul style="list-style-type: none"> • Solid State Battery (e.g., Lithium Ion and Sodium Sulphur); and, • Flow Battery (e.g., Vanadium Redox Flow)
Substation	1 X 80MVA transformer, 92m X 81m extension of substation and lightning mast height 21m
Medium Voltage Cabling	33kV 3 phase cable/s, 360m length
Underground Cabling Depth	2m deep
Powerlines (HV)	<ul style="list-style-type: none"> • 66kV, 23MVA, 800m, 18m Height and 22 m servitude (11 m on either side of the line) • All construction activities associated with the establishment of the line will be confined to an 8 m corridor (4 m on either side of the line)

Component	Description/ Dimensions
	<ul style="list-style-type: none"> Construction activities associated with the erection of poles will be limited to an 18 m radius around the location of the pole.
Powerlines (MV)	<ul style="list-style-type: none"> 11kV, 3.4MVA, 820m, 11m Height MV line and 18m servitude (9 m on either side of the line) right of way (only wayleave) All construction activities associated with the establishment of the line will be confined to an 8 m corridor (4 m on either side of the line) Construction activities associated with the erection of poles will be limited to an 11 m radius around the location of the pole.
Fencing	3 tier fence, middle fence electrified (non-lethal), 10m wide, 2.4m in height
Laydown Area	<ul style="list-style-type: none"> 1: 130 m x 111.5 m (= 14 500 m²) 2: 125 m x 62 m (7 750 m²)
Access Road	5 m width and 260 m length, Turning points 7m wide
Water Pipeline Re-alignment	32 mm and 350 m length (construction corridor of 8 m in width)

Conditions of this Environmental Authorisation

Scope of authorisation

- The development of a Battery Energy Storage System (Bess) and associated infrastructure at the Cuprum Substation near the town of Prieska, in the Siyathemba Local Municipality, Northern Cape Province, is approved as per the geographic coordinates cited in Annexure 3.
- Authorisation of the activity is subject to the conditions contained in this Environmental Authorisation, which form part of the Environmental Authorisation and are binding on the holder of the authorisation.
- The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this Environmental Authorisation. This includes any person acting on the holder's behalf, including but not

limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.

4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this Environmental Authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further Environmental Authorisation in terms of the regulations.
6. The holder of an Environmental Authorisation must apply for an amendment of the Environmental Authorisation with the Competent Authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
7. This activity must commence within a period of ten (10) years from the date of issue of this Environmental Authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for Environmental Authorisation must be made in order for the activity to be undertaken.
8. Construction must be completed within five (05) years of the commencement of the activity on site.

Notification of authorisation and right to appeal

9. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this Environmental Authorisation, of the decision to authorise the activity.
10. The notification referred to must –
 - 10.1. specify the date on which the authorisation was issued;
 - 10.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 10.3. advise the interested and affected party that a copy of the authorisation will be furnished on request;
and
 - 10.4. Give the reasons of the Competent Authority for the decision.

Commencement of the activity

11. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014, and no appeal has been lodged against the decision. In terms of Section 43(7), an appeal under Section 43 of the National Environmental Management Act, Act No. 107 of 1998, as amended will suspend the Environmental Authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

12. The site layout map attached as Appendix A of the BAR dated January 2023 is approved.
13. The Environmental Management Programme (EMPr) submitted as part of the BAR dated January 2023 is approved and must be implemented and adhered to.
14. The EMPr must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.
15. Changes to the approved EMPr must be submitted in accordance to the EIA Regulations applicable at the time.
16. The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the BAR be discovered.

Frequency and process of updating the EMPr

17. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 24 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
18. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
19. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of the EIA Regulations, 2014 as amended. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.

20. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of the EIA Regulations, 2014 as amended. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
21. The holder of the authorisation must apply for an amendment of an EMPr, if such amendment is required before an audit is required. The amendment process is prescribed in Regulation 37 of the EIA Regulations, 2014, as amended. The holder of the authorisation must request comments on the proposed amendments to the impact management outcomes of the EMPr or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

Monitoring

22. The holder of the authorisation must appoint an experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
 - 22.1. The ECO must be appointed before commencement of any authorised activities.
 - 22.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
 - 22.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
 - 22.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

23. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.
24. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the

environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.

25. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of the EIA Regulations, 2014 as amended.
26. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
27. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 as amended and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.
28. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

29. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

30. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

31. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and Competent Authority at that time.

Specific conditions

Conditions for Non-operational aspects

32. The Chance Finds Procedure contained in the EMPr must be implemented in the event that archaeological or palaeontological resources are found.
33. If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Natasha Higgitt/ Phillip Hine 021 462 5402) must be alerted as per section 35(3) of the National Heritage Resources Act 25 of 1999 (NHRA).
34. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/Ngqalabutho Madida 012 320 8490), must be alerted immediately as per section 36(6) of the NHRA.
35. Regarding the appointment of specialists: If heritage resources are uncovered during the course of the development, a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted at the expense of the developer, as soon as possible to inspect the heritage resource. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA.
36. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is disposed of, such disposal shall only occur at a landfill licensed in terms of section 20(b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008).

General

37. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 37.1. at the site of the authorised activity;
 - 37.2. to anyone on request; and
 - 37.3. Where the holder of the Environmental Authorisation has a website, on such publicly accessible website.
38. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons

of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of Environmental Authorisation: 08/05/2023



Mr Sabelo Malaza

**Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment**



Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The listed activities as applied for in the amended application form received on 16 November 2022.
- b) The information contained in the BAR dated January 2023.
- c) The comments received from Interested and affected Parties (I&APs) as included in the BAR dated January 2023.
- d) Mitigation measures as proposed in the BAR dated January 2023 and the draft EMPr.
- e) The information contained in the specialist studies contained within the appendices of the BAR dated January 2023 and as appears below:

Title	Prepared by	Date
Terrestrial Ecological Assessment	SATIVA	July 2021
Avifaunal Compliance Statement	Cossypha Ecological	August 2022
Aquatic Compliance Statement	SATIVA	August 2022
Archaeological and Heritage Impact Assessment	SATIVA	June 2021
Palaeontological Desktop Study	Prof. J.F. Durand	August 2021
Agricultural Compliance Statement	Johann Lanz	November 2022
Environmental Management Programme (EMPr)	AECOM SA (Pty) Ltd	January 2023

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The need for the proposed project stems from the provision of electricity to the national grid.
- c) The location of the Battery Energy Storage System (BESS) within the Cuprum Substation.
- d) The BAR dated January 2023 identified all legislation and guidelines that have been considered in the preparation of the BAR.

- e) The methodology used in assessing the potential impacts identified in the BAR dated January 2023 and the specialist studies have been adequately indicated.
- f) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the BAR Regulations, 2014 as amended for public involvement.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the BAR dated January 2023 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The information contained in the BAR dated January 2023 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the BAR and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.

Annexure 2: Locality Plan



ANNEXURE 3:

COORDINATES FOR THE BESS AND ASSOCIATED INFRASTRUCTURE

Description	Point	Latitude	Longitude
Coordinates for the BESS area	A	29° 57' 38.80" S	22° 17' 58.69" E
	B	29° 57' 38.34" S	22° 17' 59.28" E
	C	29° 57' 36.55" S	22° 17' 01.51" E
	D	29° 57' 35.86" S	22° 17' 00.78" E
	E	29° 57' 35.18" S	22° 17' 01.60" E
	F	29° 57' 38.41" S	22° 17' 04.83" E
	G	29° 57' 42.62" S	22° 17' 59.57" E
	H	29° 57' 40.16" S	22° 17' 56.96" E
	I	29° 57' 38.80" S	22° 17' 58.69" E

Description	Point	Latitude	Longitude
Coordinates for the Substation Extension / Engineering Area	A	29° 57' 35.86" S	22° 18' 00.78" E
	B	29° 57' 36.55" S	22° 18' 01.51" E
	C	29° 57' 38.33" S	22° 17' 59.27" E
	D	29° 57' 36.17" S	22° 17' 56.98" E
	E	29° 57' 34.38" S	22° 17' 59.20" E
	F	29° 57' 35.91" S	22° 18' 00.70" E
	G	29° 57' 35.86" S	22° 18' 00.78" E

Description	Point	Latitude	Longitude
Coordinates for the Water Pipeline Re-alignment	Start	29° 57' 35.96" S	22° 18' 00.84" E
		29° 57' 32.68" S	22° 18' 05.12" E
	End	29° 57' 27.97" S	22° 18' 00.29" E

Description	Point	Latitude	Longitude
Coordinates for the 11kV Overhead Powerline	Start	29° 57' 33.44" S	22° 17' 59.01" E
	End	29° 57' 47.39" S	22° 17' 10.83" E
Pylon Coordinates for the 11kV Overhead Powerline	CUK1	29° 57' 33.93" S	22° 17' 58.38" E
	CUK2	29° 57' 35.47" S	22° 17' 56.48" E
	CUK3	29° 57' 38.47" S	22° 17' 52.78" E
	CUK4	29° 57' 41.12" S	22° 17' 44.04" E
	CUK4-1	29° 57' 41.12" S	22° 17' 55.04" E
	CUK4-2	29° 57' 41.22" S	22° 17' 54.64" E
	CUK4-3	29° 57' 41.32" S	22° 17' 54.24" E
	PR1	29° 57' 41.42" S	22° 17' 53.80" E
	CUK5	29° 57' 44.36" S	22° 17' 58.91" E
CUK6	29° 57' 45.13" S	22° 17' 03.71" E	
CUK7	29° 57' 45.89" S	22° 17' 08.51" E	

Description	Point	Latitude	Longitude
Coordinates for the 66kV Overhead Powerline	Start	29° 57' 33.73" S	22° 17' 59.28" E
	End	29° 57' 46.82" S	22° 18' 11.25" E
Pylon Coordinates for the 66kV Overhead Powerline	1CUKA-001	29° 57' 34.50" S	22° 17' 57.27" E
	HVB2	29° 57' 38.21" S	22° 17' 57.04" E
	HVB1	29° 57' 43.63" S	22° 17' 59.06" E
	HVTOFF	29° 57' 43.74" S	22° 18' 06.43" E
	1CUKA-004	29° 57' 43.07" S	22° 18' 05.40" E
	1CUKA-005	29° 57' 45.66" S	22° 17' 09.56" E

Description	Point	Latitude	Longitude
Coordinates for the Access Road	A	29° 57' 36.26" S	22° 17' 56.56" E
	B	29° 57' 34.26" S	22° 17' 59.05" E
	C	29° 57' 34.38" S	22° 17' 59.18" E
	D	29° 57' 36.27" S	22° 17' 56.82" E
	E	29° 57' 36.28" S	22° 17' 56.82" E
	F	29° 57' 36.30" S	22° 17' 56.80" E
	G	29° 57' 36.33" S	22° 17' 56.76" E
	H	29° 57' 36.36" S	22° 17' 56.74" E
	I	29° 57' 36.39" S	22° 17' 56.73" E
	J	29° 57' 36.42" S	22° 17' 56.71" E
	K	29° 57' 36.46" S	22° 17' 56.70" E
	L	29° 57' 36.49" S	22° 17' 56.69" E
	M	29° 57' 36.53" S	22° 17' 56.69" E
	N	29° 57' 36.60" S	22° 17' 56.69" E
	O	29° 57' 36.67" S	22° 17' 56.71" E
	P	29° 57' 36.69" S	22° 17' 56.72" E
	Q	29° 57' 36.73" S	22° 17' 56.74" E
	R	29° 57' 36.76" S	22° 17' 56.76" E
	S	29° 57' 36.80" S	22° 17' 56.80" E
	T	29° 57' 37.77" S	22° 17' 57.83" E
	U	29° 57' 37.79" S	22° 17' 57.85" E
	V	29° 57' 37.80" S	22° 17' 57.87" E
	W	29° 57' 37.83" S	22° 17' 57.90" E
	X	29° 57' 37.85" S	22° 17' 57.95" E
	Y	29° 57' 37.87" S	22° 17' 58.00" E
	Z	29° 57' 37.89" S	22° 17' 58.08" E
A1	29° 57' 37.89" S	22° 17' 58.13" E	
B1	29° 57' 37.89" S	22° 17' 58.18" E	
C1	29° 57' 37.89" S	22° 17' 58.24" E	
D1	29° 57' 37.87" S	22° 17' 58.30" E	
E1	29° 57' 37.85" S	22° 17' 58.34" E	
F1	29° 57' 37.83" S	22° 17' 58.39" E	
G1	29° 57' 37.81" S	22° 17' 58.41" E	
H1	29° 57' 37.79" S	22° 17' 58.44" E	

Description	Point	Latitude	Longitude
	I1	29° 57' 35.89" S	22° 18' 00.80" E
	J1	29° 57' 36.00" S	22° 18' 00.92" E
	K1	29° 57' 38.02" S	22° 17' 58.42" E
	L1	29° 57' 38.03" S	22° 17' 58.40" E
	M1	29° 57' 38.05" S	22° 17' 58.38" E
	N1	29° 57' 38.07" S	22° 17' 58.34" E
	O1	29° 57' 38.09" S	22° 17' 58.30" E
	P1	29° 57' 38.11" S	22° 17' 58.21" E
	Q1	29° 57' 38.12" S	22° 17' 58.13" E
	R1	29° 57' 38.11" S	22° 17' 58.05" E
	S1	29° 57' 38.09" S	22° 17' 57.98" E
	T1	29° 57' 38.06" S	22° 17' 57.89" E
	U1	29° 57' 38.02" S	22° 17' 57.85" E
	V1	29° 57' 37.99" S	22° 17' 57.81" E
	W1	29° 57' 36.79" S	22° 17' 56.53" E
	X1	29° 57' 36.76" S	22° 17' 56.51" E
	Y1	29° 57' 36.73" S	22° 17' 56.48" E
	Z1	29° 57' 36.69" S	22° 17' 56.46" E
	A2	29° 57' 36.65" S	22° 17' 56.44" E
	B2	29° 57' 36.60" S	22° 17' 56.43" E
	C2	29° 57' 36.54" S	22° 17' 56.42" E
	D2	29° 57' 36.52" S	22° 17' 56.42" E
	E2	29° 57' 36.47" S	22° 17' 56.43" E
	F2	29° 57' 36.43" S	22° 17' 56.44" E
	G2	29° 57' 36.38" S	22° 17' 56.46" E
	H2	29° 57' 36.32" S	22° 17' 56.50" E
	I2	29° 57' 36.27" S	22° 17' 56.55" E
	J2	29° 57' 36.26" S	22° 17' 56.56" E

Description	Point	Latitude	Longitude
Coordinates for Laydown Area 1	A	29° 57' 35.91" S	22° 18' 07.92" E
	B	29° 57' 38.41" S	22° 18' 04.83" E
	C	29° 57' 35.18" S	22° 18' 01.60" E
	D	29° 57' 32.84" S	22° 18' 04.66" E
	E	29° 57' 35.91" S	22° 18' 07.92" E

Description	Point	Latitude	Longitude
Coordinates for Laydown Area 2	A	29° 57' 35.91" S	22° 17' 55.46" E
	B	29° 57' 38.41" S	22° 17' 58.69" E
	C	29° 57' 40.18" S	22° 17' 56.96" E
	D	29° 57' 37.84" S	22° 17' 53.79" E
	E	29° 57' 35.91" S	22° 17' 55.46" E

M.S