



# environment, forestry & fisheries

Department:  
Environment, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

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Gemsbok Solar PV2 (Pty) Ltd  
PO Box 548  
Howard Place  
PINELANDS  
7450

Telephone number: 021 685 3240  
Email address: [warren@mulilo.com](mailto:warren@mulilo.com)

## PER EMAIL / MAIL

Dear Mr Morse

### **AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 09 NOVEMBER 2015 FOR THE GEMSBOK PV2 75MW SOLAR PV FACILITY ON THE REMAINING EXTENT OF PORTION 3 OF THE FARM GEMSBOK BULT 120, KENHARDT, WITHIN THE IKHEIS LOCAL MUNICIPALITY, NORTHERN CAPE PROVINCE**

The Environmental Authorisation (EA) issued for the abovementioned application by this Department on 09 November 2015, your application for amendment of the EA received by the Department on 15 June 2020 and the acknowledgement letter dated 24 June 2020, refer.

Based on a review of the reason for requesting an amendment to the above EA, this Department, in terms of Chapter 5 of the Environmental Impact Assessment (EIA) Regulations, 2014 as amended, has decided to amend the EA dated 09 November 2015, as follows:

#### **Amendment 1: Extension of the commencement period, on page 8 of the EA**

The commencement period of the EA issued on 9 November 2015 is hereby extended by an additional five years (05) years to 9 November 2025. Condition 6 of the EA is thus amended as follows:

*"6. This activity must commence within a period of ten (10) years from the date of issue of this authorisation (i.e. the authorisation lapses on 9 November 2025). 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."*

The Department is aware that the environment changes constantly, as a result it might be significantly different from the one that existed at the time of the issuing of the EA, hence the validity of the EA cannot exceed a maximum period of 10 years. Failure to commence with construction activities within the maximum 10 year period, will result in the EA lapsing, and a new application for Environmental Authorisation will have to be lodged.

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**Reason for amendment:**

The applicant required an extension of the commencement period of the EA for the Gemsbok Solar PV2 facility by an additional 5 years, because the project has not yet been selected as a preferred bidder as part of the Department of Energy's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP).

**Amendment 2: Change in the preferred type of Energy Storage System (ESS) to be used on site from "Redox Flow Battery (RFB): Iron-chromium" to "Solid State Battery: Lithium-ion"**

On page 4 of the EA in the table of Listed Activities:

From:

Listed Activity	Activity/Project description
<p>GN R.545 Item 03</p> <p><i>"The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres".</i></p>	<p>It is proposed that an energy storage facility be constructed adjacent to the substation. The energy storage facility will have a maximum footprint of 200m x 200m and a maximum height of 30m. The Iron Chromium electrolyte proposed to be used within the Redox Flow Battery (preferred technology) does contain HCl, albeit a very small quantity, and is deemed to be a dangerous good in terms of SANS 10234 supplement 2008. Diesel or similar type of materials may also be stored on site. The cumulative capacity of the containers storing dangerous good on site will exceed 500 m<sup>3</sup>.</p>

To:

Listed Activity	Activity/Project description
<p>GN R.545 Item 03</p> <p><i>"The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres".</i></p>	<p>It is proposed that an energy storage facility be constructed adjacent to the substation. The energy storage facility will have a maximum footprint of 200m x 200m and a maximum height of 30m. The preferred technology for the energy storage system will be Lithium-ion Solid State Battery technology. The Lithium-ion chemistries may be deemed to be a dangerous good in terms of SANS 10234 supplement 2008. Diesel or similar type of materials may also be stored on site. The cumulative capacity of the containers storing dangerous good on site may exceed 500 m<sup>3</sup>.</p> <p>While battery technology does not trigger this activity, provided the electrolytes are not stored in separate containers on site, this activity is maintained in the EA as a precaution.</p>

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**On page 6 of the EA in the project description:**

**From:**

The Photovoltaic (PV) Power Plant together with its connection infrastructure and structures will require the installation of the following equipment and building infrastructure:

- Solar measuring station;
- Offices;
- Operational and maintenance control centre;
- Warehouse/workshop;
- Ablution facilities;
- Inverter stations;
- On-site 3 bay 132kV substation and substation building;
- Guard House.
- A 200m x 200m **Redox Flow Battery Energy Storage Facility**;
- 132 kV overhead transmission line;
- Additional feeder bay and Busbar at the Eskom Nieuwehoop substation;
- 22/33 kV internal transmission line;
- < 8 m wide internal access road;
- Fencing;
- Temporary work area during the construction phase; and
- Storm water channels exceeding 1 km in length.

**To:**

The Photovoltaic (PV) Power Plant together with its connection infrastructure and structures will require the installation of the following equipment and building infrastructure.

- Solar measuring station;
- Offices;
- Operational and maintenance control centre;
- Warehouse/workshop;
- Ablution facilities;
- Inverter stations;
- On-site 3 bay 132kV substation and substation building;
- Guard House.
- A 200m x 200m **Lithium-Ion Battery Energy Storage Facility**;
- 132 kV overhead transmission line;
- Additional feeder bay and Busbar at the Eskom Nieuwehoop substation;
- 22/33 kV internal transmission line;
- < 8 m wide internal access road;
- Fencing;
- Temporary work area during the construction phase; and
- Storm water channels exceeding 1 km in length.

**Reason for amendment:**

The Final EIA Report dated March 2015 assessed both ESS technologies. Both options were deemed to be acceptable, but the RFB consisting of Iron-chromium was put forward as the preferred battery storage technology. Since the issuing of the EA for the Gemsbok Solar PV2 project, significant advancements in ESS technologies have however occurred and a rapid uptake in the global market has seen costs sharply decline. Lithium-ion battery chemistries are now the dominant technology currently, mainly due to its very high energy density, high cycle life, and because they are considered safe. Solid state batteries consist of multiple battery cells that are assembled

together to form modules. Modules are normally packaged inside shipping containers and these containers are delivered pre-assembled to the project site. There will be no changes to the footprint, specifications or location of the Solid State Battery: Lithium-ion compared to that of the RFB: Iron-chromium. No negative environmental impacts are anticipated due to the change in the preferred ESS technology. The Ecology (Freshwater and Aquatic), Groundwater, Heritage, Visual and Agricultural Soil Potential specialists confirmed that the amendment to the ESS will not change the scope of the EA dated 9 November 2015, nor increase the level or nature of the impact, which was initially assessed when application was made for the EA. The change from a RFB to a Solid State Battery would seem to have a net benefit, as Solid State Batteries carry less of a potential risk to the aquatic environment than the previously proposed liquid state system, in the event of a spill.

**Amendment 3: Change in the contact details of the holder of the EA in the cover letter and on page 2 of the EA**

**From:**

Mr Chris Aberdein  
PO Box 50  
**CAPE TOWN INTERNATIONAL AIRPORT**  
7525  
Telephone number: 021 934 5268  
Fax number: 021 935 0505  
Email address: [Karen@mulilo.com](mailto:Karen@mulilo.com)

**To:**

Mr Warren Morse  
Gemsbok Solar PV2 (Pty) Ltd  
PO Box 548  
Howard Place  
**PINELANDS**  
7450  
Telephone number: 021 685 3240  
Fax number: 0866356809  
Email address: [warren@mulilo.com](mailto:warren@mulilo.com)

**Reason for amendment:**

The holder of the EA moved their office and therefore requested that the physical address be changed, as well as the associated contact details, to ensure that the correct contact details are reflected on all documentation and communication from the Department regarding the project.

**General**

This amendment letter must be read in conjunction with the EA dated 09 November 2015.

In terms of the Promotion of Administrative Justice Act, 2000 (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, 2013 (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.

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

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14 (fourteen) days of the date of the EA, of the Department's decisions, as well as the provisions regarding the submission of appeals that are contained in the Regulations.

Your attention is drawn to Chapter 2 of National Environmental Management Act, 1998 (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@environment.gov.za](mailto:appeals@environment.gov.za);

By hand: Environment House  
473 Steve Biko,  
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.environment.gov.za/documents/forms#legal\\_authorisations](https://www.environment.gov.za/documents/forms#legal_authorisations) or request a copy of the documents at [appeals@environment.gov.za](mailto:appeals@environment.gov.za).

Yours faithfully

  
**Mr Sabelo Malaza**  
Chief Director: Integrated Environmental Authorisations  
Department of Environment, Forestry and Fisheries  
Date: 23/07/2020

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	Samantha de la Fontaine	DENC	E-mail: <a href="mailto:sdelafontaine@gmail.com">sdelafontaine@gmail.com</a>
	Mr Scheepers	IKheis Local Municipality	E-mail: <a href="mailto:teresascheepers@vodamail.co.za">teresascheepers@vodamail.co.za</a>

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