

# ENVIRONMENTAL IMPACT ASSESSMENT PROCESS AND INTEGRATED WATER USE LICENCE APPLICATION PROCESS

**THE PROPOSED RENEWABLE ENERGY GENERATION PROJECTS BY CARINA ENERGY (PTY) (BUFFALO 1 SOLAR PARK) AND CANIS ENERGY (PTY) LTD (BUFFALO 2 SOLAR PARK) RENEWABLE ENERGY GENERATION PROJECTS ON FARMS BUFFELSJAGT 744-LQ AND FARM VERGULDE HELM 321 LQ WITH OVERHEAD POWERLINES TO THE ESKOM MEDUPI SUBSTATION, WITHIN THE LEPHALALE LOCAL MUNICIPALITY, WATERBERG DISTRICT MUNICIPALITY.**

**LYRA ENERGY (PTY) (LYRA 1 SOLAR PARK) AND CYGNIS ENERGY (PTY) LTD (LYRA 2 SOLAR PARK) RENEWABLE ENERGY GENERATION PROJECTS ON FARM WELGELEGEN, 469-LQ AND FARM GROOT VOGELSTRUISFONTEIN 644 LQ WITH OVERHEAD POWERLINES TO THE ESKOM MATIMBA SUBSTATION AND/OR TO THE ESKOM WATERBERG DISTRIBUTION SUBSTATION, WITHIN THE LEPHALALE LOCAL MUNICIPALITY, WATERBERG DISTRICT MUNICIPALITY**

**BACKGROUND INFORMATION DOCUMENT AND INVITATION TO PARTICIPATE  
12 AUGUST 2022**

## **1. PURPOSE OF THIS DOCUMENT**

The aim of this document is to:

- Provide background information to parties interested in and/or affected by the proposed development.
- Provide information of the Environmental Impact Assessment (EIA) Process to be followed for the proposed establishment of a solar energy generation facility with associated infrastructure and structures on Farm Buffelsjagt 744-LQ (Buffalo 1 Solar Park), Farm Vergulde Helm 321 LQ (Buffalo 2 Solar Park), Farm Welgelegen, 469-LQ (Lyra 1 Solar Park) and Farm Groot Vogelstruisfontein 644-LQ (Lyra 2 Solar Park), located within the Lephalale Local Municipality, Waterberg District Municipality, Limpopo Province.
- Indicate how you, as an Interested and Affected Party (I&AP), can become involved in the EIA and IWULA process.

## **2. PROJECT DESCRIPTION**

Carina Energy (Pty) Ltd (Reg no. 2022/367044/07), Canis Energy (Pty) Ltd (2022/367172/07), Lyra Energy (Pty) (2022/367153/07) and Cygnis Energy (Pty) Ltd (2022/367451/07) are proposing the development, construction and operation of four renewable energy

generation facilities (Photovoltaic Power Plants) and associated infrastructure, and structures on Farm Buffelsjagt 744-LQ, Farm Vergulde Helm 321 LQ, Farm Welgelegen, 469-LQ and Farm Groot Vogelstruisfontein 644-LQ, located within the Lephalale Local Municipality, Waterberg District Municipality, Limpopo Province.

Exigent Engineering Consultants CC (Exigent) has been appointed to oversee the legislative environmental processes applicable to the proposed project. The renewable energy generation facility will use Photovoltaic (PV) technology. The name of the proposed facilities will be Buffalo 1 and 2 Solar Parks as well as Lyra 1 & 2 Solar Parks.

The projects envisage the establishment of four solar power plants with a maximum generation capacity at the delivery point (Maximum Export Capacity) of up to 240 MW each. The proposed Buffalo 1 & 2 Solar Parks will deliver the electrical energy to the Medupi Power station through a new power line of approximately 12 km in length and the proposed Lyra 1 & 2 Solar Parks will deliver the electrical energy to the Eskom Matimba Power station or the Eskom Waterberg Distribution Sub-station through a new power line of approximately 12 km in length. A 132 kV feeder bay will be commissioned and

equipped at the Eskom Medupi substation. The chosen sites are suitable for the installation of a photovoltaic (PV) power plant. It is appropriate morphologically (flat terrain) and regarding the favourable radiation conditions. The available radiation allows a high rate of electric energy production. The proposed developments will have footprints up to 600 ha each.

### 3. PROJECT LOCATION

**Buffalo 1 & 2 Solar Parks:** on Farm Buffelsjagt 744-LQ and Farm Vergulde Helm 321 LQ (the project sites), with overhead powerlines up to the Eskom Medupi substation, potentially crossing Farms Naauw Ontkomen 509 – LQ, Turfvlakte 463 – LQ, Hieromtrent 460 – LQ, Remaining Extent of the farm Vaalpensloop 313 – LQ, Portion 1 of the farm Vaalpensloop 313 – LQ, Vergulde Helm 321 – LQ, Buffelsjagt 744 – LQ, Remaining Extent of the farm Kuipersbult 511 – LQ, Portion 1 of the farm Kuipersbult 511 – LQ, Kromdraai 690 – LQ, Hooikraal 315 – LQ, located in the Lephalale Local Municipality, Waterberg District Municipality, Limpopo Province.

**Lyra 1 & 2 Solar Parks:** on Farm Welgelegen, 469-LQ and Farm Vogelstruisfontein 644-LQ (the project sites), with overhead powerlines up to the Eskom Matimba substation or to the Waterberg Eskom Distribution Substation, potentially crossing Farms Welgelegen 321 – LQ, Farm Vogelstruisfontein 644-LQ, Remaining Extent of the farm Peerboom 466 – LQ, Remaining Extent of the farm Grootestryd 465- LQ, Eendracht 505 – LQ, Remaining Extent of the farm Altoostyd 506 – LQ, Portion 1 of the farm Altoostyd 506-LQ, Remaining Extent of the farm Zwartwater 507 – LQ, Remaining Extent of the farm Groothoek 504 – LQ, Portion 1 of farm Groothoek 504 – LQ, Remaining Extent and Portions 1, 2 and 3 of the farm Hanglip 508-LQ, Portion 2 of Peerboom 466-LQ,, located in the Lephalale Local Municipality, Waterberg District Municipality, Limpopo Province.

21-digit Surveyor General code for the properties affected by the proposed Solar Parks

T	0	L	Q	0	0	0	0	0	0	0	0	0	7	4	4	0	0	0	0	0
F	0	0	4	0	0	0	0	0	0	0	0	0	1	0	3	2	1	0	0	0
T	0	L	Q	0	0	0	0	0	0	0	0	0	6	4	4	0	0	0	0	0
F	0	0	4	0	0	0	0	0	0	0	0	0	1	0	4	6	9	0	0	0

Coordinates of the project sites		
Central point of the footprint	Latitude	Longitude
Buffalo 1 Solar Park	23° 43' 05" S	27° 27' 00" E
Buffalo 2 Solar Park	23° 43' 14" S	27° 29' 10" E
Lyra 1 Solar Park	23° 38' 42" S	27° 41' 35" E
Lyra 2 Solar Park	23° 38' 23" S	27° 44' 00" E

### 4. ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS - LEGAL FRAMEWORK

An Environmental Authorisation application will be submitted National Department of Forestry, Fisheries and Environment (DFFE) in terms of the EIA Regulations under Section 24(5), and 44 of the National Environmental Management Act (NEMA) (Act No. 107 of 1998), as amended of the intent to carry out the Environmental Impact Assessment Process (in terms of listed activity 9, 10, 11, 12, 19 24 and 28 of Listing Notice 1 – GN R983, as amended (GNR 327) and listed activity 1, 9 and 15 of Listing Notice 2 – GN R984, as amended (GNR 325) and listed activity 4, 12 and 14 of Listing Notice 3 - GN R985, as amended (GNR 324). The listed activities triggered under GN R983, GN R984 and GN R985, will require an EIA Process. An Integrated Water Use License Application (IWULA) will be submitted to the Department of Water and Sanitation (DWS) for applicable water uses listed in Section 21 of the National Water Act, 1998 (Act 36 of 1998).

#### **GN R983, as amended (GNR 327)- NEMA Environmental Impact Assessment Listing Notice 1:**

**Activity 9:** *The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water—*  
 (i) *with an internal diameter of 0,36 metres or more; or*  
 (ii) *with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve;*

**Activity 10:** *The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes –*  
 (i) *with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve;.*

**Activity 11:** 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; or

**Activity 12:** The development of – (ii) infrastructure or structures with a physical footprint of 100sq.m. or more

(c) within 32m of a watercourse, measured from the edge of a watercourse.

**Activity 19:** The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres

**Activity 24:** The development of a road— (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;

**Activity 28:** Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:

(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.

### **GN R984, as amended (GNR 325)- NEMA Environmental Impact Assessment Listing Notice 2:**

**Activity 1:** The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more,

**Activity 9:** Development of facilities or infrastructure for transmission and distribution of electricity with a capacity of 275 kV or more, outside urban areas or industrial complex. excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is — (c) within an existing transmission line servitude; and

**Activity 15:** The clearance of an area of 20 hectares or more of indigenous vegetation.

### **GN R985, as amended (GN R324)- NEMA Environmental Impact Assessment Listing Notice 3:**

**Activity 4:** The development of a road wider than 4 metres with a reserve less than 13,5 metres. **e. Limpopo**

i. Outside urban areas: (aa) A protected area identified in terms of NEMPAA, excluding disturbed areas; (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres

from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas; or

**Activity 12:** The clearance of an area of 300 square metres or more of indigenous vegetation

**e. Limpopo ii.** Within critical biodiversity areas identified in bioregional plans;

**Activity 14:** The development of— (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs—(a) within a watercourse;

**e. Limpopo i.** Outside urban areas: (aa) A protected area identified in terms of NEMPAA, excluding conservancies; (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve;

## **5. ANTICIPATED ENVIRONMENTAL ISSUES**

It is anticipated that the following environmental aspects will be significant and will hence be addressed by the project team during the assessment process:

- Impacts on avifauna;
- Impacts on vegetation and fauna;
- Impacts on the agricultural potential of the soils;
- Geological, soil and erosion impacts;
- Impacts on heritage resources;
- Visual impact;
- Social and economic impacts.

Management guidelines will be developed for the above-mentioned issues and incorporated in an Environmental Management Programme (EMPr).

You are welcome to comment on the above list and provide additional anticipated issues and possible impacts that should be assessed.

## **6. SPECIALISTS**

The project team has identified potentially significant issues and will further assess these impacts in terms of their significance in accordance with the guidelines for EIA published by the DFFE.

The specialist studies that will be conducted include:

- Terrestrial Biodiversity and Wetland Assessment
- Agricultural Theme Assessment
- Visual Impact Assessment
- Palaeontology Assessment
- Aquatic Biodiversity Assessment
- Landscape (Solar) Assessment
- Archaeological Assessment

The Department of Forestry, Fisheries and Environment (DFFE) or other stakeholders may request additional specialists' studies if necessary.

### **7. PUBLIC PARTICIPATION PROCESS**

Public Participation is any process that involves the public in problem solving or decision-making and forms an integral part of the EIA. The Public Participation Process (PPP) provides people who may be affected by the proposed development, with an opportunity to provide comments and to raise issues of concern, or to make suggestions that may result in enhanced benefits for the project.

Comments and issues raised during the PPP will be captured, evaluated, and included in a Comments and Response Report, which will be incorporated into the draft Environmental Impact Assessment report (EIA) and the IWULA. The draft EIA, WULA and EMP will be made available for public review prior to submission to the relevant environmental authorities.

### **8. APPROVING AUTHORITY**

The DFFE is the relevant authority that will review the Scoping and EIR. The DFFE must reach a decision as to whether, and under what conditions, the project may proceed, based on environmental considerations.

The process to be followed is depicted in Figure 1 as per the amended 2014 NEMA regulations.

The DWS is the relevant authority that will review the IWULA. A decision on the application will be made by DWS based on the content that will be provided in the IWULA and the supporting documents.

### **9. INVITATION TO PARTICIPATE**

Exigent Engineering Consultants have been appointed by the above-mentioned entities to manage and facilitate the environmental process and PPP required for the project.

We would like to encourage you to participate in this EIA process. Should you wish to get involved, please provide written comments on or before **12 September 2022**.

#### **EXIGENT ENGINEERING CONSULTANTS**

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Public Participation Dropbox link:  
<https://www.exigent.co.za/environmental/public-review-documents>

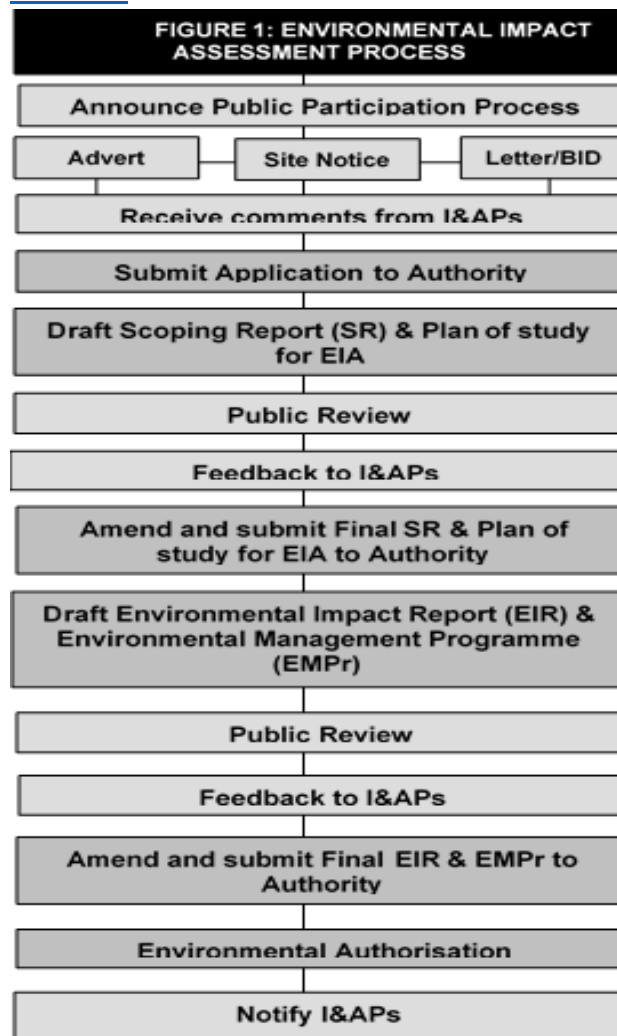




Figure 2. Locality Map

