NATIONAL ENERGY REGULATOR OF SOUTH AFRICA

APPLICATION FOR AN ELECTRICITY GENERATION LICENCE IN TERMS OF THE ELECTRICITY REGULATION ACT, 2006 (ACT NO. 4 OF 2006).

Please return completed form to:

HOD: Electricity Licensing and Compliance
National Energy Regulator of South Africa
Kulawula House, 526 Vermeulen Street
Arcadia, 0083
Pretoria

Or:

HOD: Electricity Licensing and Compliance
National Energy Regulator of South Africa
P.O. Box 40343
Arcadia
0007

Tel (012) 401 - 4600

Fax (012) 401 - 4700

Sedibeng Solar PV Project (RF) (Pty) Ltd

SECTION A PARTICULARS OF APPLICANT

A1 Full name of applicant (business name) and business registration number

Sedibeng Solar PV Project (RF) (Pty) Ltd

Reg. No: 2019/474060/07

A2 Address of applicant, or in the case of a body corporate, the registered head office

Physical address

2D Nautica, The Water Club,
Beach Road, Granger Bay,
Cape Town, 8005

Postal address

2D Nautica, The Water Club,
Beach Road, Granger Bay,
Cape Town, 8005

A3 Telephone number of applicant

021 421 9764

A4 Fax number of applicant

n/a

A5 Email address of applicant

khotso@sola.africa

permits@sola.africa

A6 Contact person

First name:	*Khotso*
Surname:	*Selokoma*
Telephone No.	*021 421 9764*
Mobile No.	*078 223 0994*
Fax No.	*086 513 8648*
Email address:	*khotso@sola.africa*
	permits@sola.africa

A7 Legal form of applicant

The Applicant is a private company (proprietary limited) with the Reg. No: 2019/474060/07. The directors of Sedibeng Solar PV Project (RF) (Pty) Ltd are as below:

- *Christopher James Haw*
- *Simon Charles Haw*

Note to Section A

1) State whether the applicant is a local government body, a juristic person established in terms of an act of parliament, a department of state, a company or other legal body.

2) If the applicant is a local government body, attach a copy of the proclamation establishing such body. Where the applicant is a company, the full names of the current directors and the company registration number are required.

SECTION B COMMENCEMENT DATE OF LICENCE

B1 Desired date from which the license (if granted) is to take effect

As soon as possible, no later than 25 July 2021, as Financial Close is targeted for 10 August 2021.

The Scheduled Commercial Operation Date is 6 February 2022.

The Power Purchase Agreement signed with the private Client allows for the Commercial Operation Date to be declared ahead of the Scheduled Commercial Operation Date, therefore the Applicant will strive to meet timelines ahead of the scheduled dates, and the Facility is expected to generate power in the fourth quarter of 2021.

[redacted]

Note to Section B

3) The normal processing time for a licence application is 120 days once all relevant information has been provided and there are no objections received.

4) If the applicant intends operating more than one generation station under the proposed licence, please complete separate application forms for each generation station.

SECTION C PARTICULARS OF PROPOSED GENERATION STATION

C1 Name of generation station

Sedibeng Solar PV Project

C2 Geographical location of generation station (please attach maps) and GPS coordinates (x0xx'xxx" S, y0yy'yyy" E)

The site is approx. 16km North-North East of Meyerton, Gauteng

Coordinates for the center of the site: 26°25'48.18"S ,28° 3'47.90"E,

Locality maps are attached in ***Appendix 2.***

C3 Address of generation station

Graceview Extension 3 Township, Portion 2 of Erf 244,
Klipriver Business Park
Midvaal Municipality
Gauteng

C4 Contact person at generation station

Details will be provided once the solar farm is built and an operational manager is appointed.
In the interim we are providing contact details on behalf of the Project Company

First name and Surname	*Chris Haw and Khotso Selokoma*
Telephone No	*+27 21 421 9764*
Mobile No	*+27 78 223 0994 (Khotso Selokoma)*
Fax No	*N/A*
Email address	*khotso@sola.africa* *permits@sola.africa*

C5 Type of generation station (thermal, nuclear, hydro, pumped storage, gas turbine, diesel generator or other)

Solar Photovoltaic

C6 Expected commissioning date for a proposed generation station or at which the station was commissioned (if an existing station). Also state construction period required if applicable.

Final commissioning acceptance to take place by January 2022 . The targeted construction period is no longer than 6 months.

C7 The installed capacity (existing and/or planned) of each unit within the generation station (MW)

Existing Capacity (Nameplate rating)

None

Planned Capacity (Nameplate rating)

6.5MWac Contracted Capacity, 7.67MW Peak DC Nameplate Capacity

C8 Maximum generation capacity (MW) expected to be available from the generation station and energy to be produced (MWh) over the next 5 years of operation. These estimates should be based on modelling of how the power station will fit into the demand profile of its customers, taking into account the least cost energy purchase consideration and demand management options of customers.

YEAR	Max MW	Total MWh	Own use MWh (Night time consumption)	Export (Sales) MWh
Year 1	*6.5*	*17,292*	*30*	*17,292*
Year 2	*6.5*	*17,188*	*30*	*17,188*
Year 3	*6.5*	*17,085*	*30*	*17,095*
Year 4	*6.5*	*16,981*	*30*	*16,981*
Year 5	*6.5*	*16,877*	*30*	*16,877*
Year 6	*6.5*	*16,774*	*30*	*16,774*

C9 Estimate of the energy conversion efficiency of the generation station.

PV inverter efficiency (conversion unit): ***98.5%***

Performance Ratio (PR) of the conversion station: ***84.10%***

C10 Expected future life of the generation station.

After 25 years the performance of the solar panels will drop to approx. 84% of their original power, and at this point it will become financially worthwhile to replace the panels of the plant. The life of the generation station can therefore be extended indefinitely.

SECTION D PARTICULARS OF LONG TERM ARRANGEMENTS WITH PRIMARY ENERGY SUPPLIERS

D1 Name of primary energy supplier/s (mining house, colliery or other fuel supplier)

There are no primary energy requirements for this power generation facility as this is a solar power plant.

D2 Particulars of the contractual arrangements with primary energy supplier

No contractual arrangements required

Notes to Section D

5) Please provide brief particulars of any long term agreements entered into with fuel suppliers and copies of such contracts (Signed Fuel Supply Agreements).

SECTION E MAINTENANCE PROGRAMMES AND DECOMMISSIONING COSTS

E1 Details of any proposed major maintenance programmes, including the expected cost and duration thereof, covering the next six years. Project proposals to state the expected availability, planned outage rate and forced outage rate of the plant over the first five years of operation.

An Operations & Maintenance Agreement will be in place with a qualified Operator who will perform all preventative and corrective maintenance over the life of the Solar PV Plant. During the first 6 years of the plant's life, the only major maintenance that may occur is replacement of some of the inverters in year 6 as they come out of warranty after 5 years. As per the detailed financial model the expected cost of the inverter replacement in year 6 is estimated at around R 900,000. No major maintenance is expected in years 1 -5. We note the costing information is commercially sensitive to the Project Company, and to be kept confidential.

From the Commercial Operation Date the expected plant availability is greater than 99.0% . The Grid availability is assumed at 99.0% including any unplanned outages. The performance ratio of the plant is estimated at 85.49%.

[redacted]

[redacted]

[redacted]

E2 Details of any major decommissioning costs expected during the lifespan of the power station and provided for in the project feasibility study.

As this is a renewable energy power plant, it is expected that the life of plant can be extended after the initial Power Purchase Agreement term and by replacing the solar modules after year 25 with new ones to extend the power plant's lifespan; should the Client require the plant to be decommissioned earlier (than the Plant's technical lifetime) a decommissioning cost has been agreed with the Client, as per the PPA. at a value of [redacted] *Any further costs will be attributed to the Capital Costs under a new PPA.*

E3 Details of major generation station expansion and modifications planned for in the feasibility study (Dates, Costs in Rands (state year) and description)

No major expansions or modifications are expected during the term of the PPA.

SECTION F CUSTOMER PROFILE

F1 Particulars of the person or persons to whom the applicant is providing or intends to provide electricity from the generation station

This power plant will be providing power to Heineken Sedibeng Brewery (Owned by Heineken South Africa (RF) (Pty) Ltd).
Located on Graceview Ext 1 Erf 243

The Brewery is connected to the Midvaal distribution network and is regulated through an Energy Supply Agreement with Midvaal Local Municipality.

F2 Network connection details (connection points, voltages, wheeling arrangement, single line diagram)

The Power plant is intended to connect to 11kV Heineken Substation approx. 0.5km North of the generator via a 11kV MV Cable.

Details to the grid connection and the generation plant are provided in Appendix 2 of this application. The following information is provided:

- *Locality Map*
- *The Single Line Diagrams*
- *Layout*

F3 Provide summary details of Power Purchase Agreements with customer including purchasing price etc. (Please attach Power Purchase Agreements).

The signed Power Purchase Agreement (PPA) between the Generator and the Client is attached to this application in Appendix 1. Please note this agreement as well as this entire application is strictly confidential. A summary of the key terms of the PPA is provided in the table below.

[redacted]

[redacted]

The Municipal Use of System Agreements are attached in Appendix 5 of this application:

Notes to Section F

6) For example, supply to ESKOM or supply to local government distribution system. Please include the details of power purchase agreements entered into and the price structure of the contract.

SECTION G FINANCIAL INFORMATION

G1 G1 Submit projections of and current statements of the accounts in respect of the undertaking carried on by the applicant, showing the financial state of affairs of the most recent period, together with copies of the latest audited annual accounts where such have been prepared.

Please refer to appendix 4.[redacted]

Please note all the information in this section is commercially sensitive and will need to be kept confidential.

G2 Submit annual forecasts for the next five years of costs, sales and revenues generated by the project, stating the assumptions underlying the figures.

Please refer to appendix 4.[redacted]

G3 Estimates of net annual cash flows for subsequent periods (5 years; 10 years; 15 years) sufficient to demonstrate the financial security and feasibility of operating the generation station.

Please refer to appendix 4.[redacted]

G4 Project financing: Who will finance the project, how is funding split between debt and equity, and what is the terms and conditions of the funding agreements.

[redacted]

In addition, also fill in table below (Fully indexed):

Total capital cost of the project (including IDC)	[redacted]
Interest During Construction (IDC)	
Post tax real IRR (for the whole project)	
Nominal IRR after Tax (for the whole project)	
Debt/Equity Ratio	
Payback period	

For any detailed information please refer to appendix 4.

The Financial Model is provided in Appendix 4 of the electronic copy. We note that the financial data for the project provided in this application is strictly confidential, and commercially sensitive to both the Project Company and the Client. It is issued for NERSA's internal evaluation purposes only[redacted]

Notes to Section G

7) The financial projections should be based on a production plan for the generation station and the revenue generated by participating in the electricity market and by bilateral contracts (Power Purchase Agreements) with customers. Reference to the latest version of National Integrated Resource Plan (IRP) is required to demonstrate that the proposed power purchase agreement is the least cost solution available to the electricity purchaser.

SECTION H HUMAN RESOURCES INFORMATION

H1 Submit details of the number of staff and employees and their categories in the service of the applicant at the generation station and in any support services separate from the generation station. Also provide information regarding relevant qualifications and experience in critical areas e.g. Professional registration (Engineering Council of South Africa – ECSA), Government Certificate of Competency.

Number of people to be employed

For Construction Phase (a period of 6 months): The equivalent of 50.9 full time contract jobs will be created for one year

[redacted]

[redacted]

For Operations and Maintenance phase: 7.84 full time permanent job equivalents broken down as below.

[redacted]

SECTION I PERMISSION FROM OTHER GOVERNMENT DEPARTMENTS OR REGULATORY AUTHORITIES

I1 What progress has been made to obtain the required permits and approvals for the generation project? Please provide copies of permits issued by the relevant environmental and safety agencies in respect of the operation of the generation station.

Please see below list of permits and approvals all obtained for the Generation project:

- *Confirmation that existing Environmental regulations and authorizations permit the project to proceed to construction (Seaton Environmental), 20/10/2020*
- *Approval to rezone a portion of the property for the project area was received from Municipality; Receive 28/07/2020*
- *Confirmation of no registered mining rights was received from the DMR in terms of Section 18; Received 28/10/2019*
- *Land claims approval stating that no restitution claims have been lodged against the project site area, from the Regional Land Claims Commission; Received 07/10/2019*
- *Civil Aviation Authority Consent for the project; Received 12/11/2020*
- *Site Access Approval, Gauteng Department of Roads and Transport; Received 30/03/2020*
- *Use of System agreement letter from Midvaal Municipal Manager; Received 05/01/2021*

We hereby confirm that these permits & licensing are comprehensive and allow the Project to be implemented as soon as the Generation License is received.

Documents not recently renewed have no expiry date and are confirmed to be still valid. All documents can be found on the electronic copy and in Appendix 7.

SECTION J BROAD-BASED BLACK ECONOMIC EMPOWERMENT

J1 Please provide information in terms of the following categories:

COMPONENTS	POINTS	0.5	0.75	1
Direct Empowerment	Black Ownership	10% to <20%	20% to 50%	>50%
	Black Management	20% to <35%	35% to 50%	>50%
	Black Female Management	1% to <5%	5% to 10%	>10%
Human Resource Development	Black Skilled Personnel as % of payroll	20% to <35%	35% to 50%	>50%
	Skills Development Programs as % of payroll	1% to <5%	5% to 10%	>10%
	Employment Equity i.e. Women Representation	20% to <35%	35% to 50%	>50%
Indirect Empowerment	Procurement from Black/BEE Suppliers	<20%	35% to 50%	>50%
	Enterprise Development i.e. Monetary Investment or quantifiable non-monetary support in SMME with BEE contributions as % of Net Asset Value/ EBITDA/Total Procurement	10% to <20%	20% to 25%	>25 %
	Industry specific initiatives to facilitate the inclusion of black people in the sector as % of net profit	1% to <5%	5% to 10%	>10%
NERSA's Discretionary Points	Based on skills transfer and fulfilment or acceleration of other national objectives e.g. employment of disabled personnel robust implementation of mechanisms to verify the BEE status of suppliers reported under preferential procurement and utilization of DTI approved accreditation agencies and so on.	1% to <5%	5% to 10%	>10%

Following Response is provided in terms of Section J.

Direct Empowerment

Black ownership	*More than 50%*
Black Management Control	*0% (tbd)*
Black Female Management	*0% (tbd)*

The SPV will be **BEE Level 2**.

Human Resource Development

Black Skilled Personnel as % of payroll	*min. 25%*
Skills Development Programs as % of payroll	*2% (first year unskilled labour training)*
Employment Equity i.e.Women Representation	*min. 25%*

Indirect Empowerment

Procurement from Black/BEE Suppliers	*10%*
Enterprise Development i.e. Monetary Investment or % quantifiable non-monetary support in SMME with BEE contributions as % of Net Asset Value/ EBITDA/Total Procurement	*n/a*
Industry specific initiatives to facilitate the inclusion % of black people in the sector as % of net profit	*n/a*

NERSA's Discretionary Points

The Solar industry in South Africa is taking an active role in promotion job creation and upskilling engineering students in solar PV technology. Some of the initiatives are:

- *South African Photovoltaic Industry Association (SAPVIA) is the representative voice of the solar PV industry in South Africa. It's mandate is to:*
    - *Represent the PV industry towards Government at Provincial and National level,*
    - *Inform its Members on the latest legislative developments,*
    - *Anticipate legislation having a potential impact on the sector,*
    - *Advise key decision-makers on the most adequate policies to develop a sustainable PV market,*
    - *Mobilise the sector via working groups and workshops to define clear positions on political, technical and economic issues,*
    - *Promote a higher penetration of the technology,*
    - *Facilitate business-to-business contacts among industry stakeholders,*
    - *Support national organisations in achieving their local objectives,*
    - *Organise conferences where solar electricity has strong potential and requires additional support*
    - *https://www.sapvia.co.za/*

- *South African Renewable Energy Technology Centre (SARETEC) center at Cape Peninsula University of Technology (CPUT) who are running the following industry and Solar installation courses:*

- *Solar PV installer courses:*
- *PV Greencard courses: once every month*
- *https://www.saretec.org.za/*

The IPP is a member of SAPVIA and therefore supportive of any industry initiatives.

SECTION K ADDITIONAL INFORMATION

Provide any other relevant information related to this application

SECTION L DECLARATION

On behalf of the applicant, I hereby declare that:

(a) the applicant shall at all times comply in every respect with the conditions attached to any licence that may be granted to the applicant;

(b) the applicant shall at all times comply with lawful directions of the National Energy Regulator of South Africa;

(c) the information provided by me on behalf of the applicant is accurate and complete in all respects; and

(d) I am authorised to make this declaration on behalf of the applicant.

Signed:

Full name(s) of Signatory:

Christopher James	Haw

Position held (if the applicant is a company, co-operative, partnership, unincorporated association or any other body corporate):

Director	

Date:

8 February 2021