



**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**

SECTION A PARTICULARS OF APPLICANT

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

Name of Applicant Currently: ACWA Power Khanyisa Thermal Power Station (RF) (Pty) Ltd.

Refer to Annexure A: Company Registration Documents of the ACWA Power Khanyisa Thermal Power Station (RF) (Pty) Ltd as proof that the Project Company has been formed.

And enclosed herewith is Annexure B: Preferred Bidder Status as awarded by the Department of Energy (DoE) as part of its Request for Proposals and Qualification (RFP), Tender No: DOE/010/2014/15 for the Coal Baseload Independent Power Producers Procurement Programme (CBIPPPP).

Business Registration Nr: 2012/120292/07

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

ACWA Power Khanyisa Thermal Power Station (RF) (Pty) Ltd.

PHYSICAL ADDRESS C/O Prabashen Govender
Office XX07001
90 Grayston Drive;
Sandton;
2196

POSTAL ADDRESS C/O Prabashen Govender
PO Box 650200
Benmore;
2010

A3 Telephone number of applicant:

Office: +27 11 722 4100

Mobile: +27 83 273 1122

A4 Fax number of applicant:

Fax: +27 11 722 4113

A5 Email address of applicant:

pgovender@acwapower.com

A6 Contact person:

	ACWA Power Khanyisa Thermal Power Station (RF) (Pty) Ltd.
Name	Prabashen
Surname	Govender
Tel Nr	+27 11 722 4100
Mobile Nr	+27 83 273 1122
Fax Nr	+27 11 722 4113
Email	pgovender@acwapower.com

A7 Legal form of applicant:

- 1. A Company:** ACWA Power Khanyisa Thermal Power Station (RF) (Pty) Ltd.

Refer to [Annexure A](#): Company Registration Documents of the ACWA Power Khanyisa Thermal Power Station (RF) (Pty) Ltd as proof that the Project Company has been formed.

2. Details of the Directors:

NAME OF DIRECTOR	ID/PASSPORT NUMBER
Prabashen Govender	690507 5113 088

Note to Section A

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. 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.

Note to Section a Response: A Company:

ACWA Power Khanyisa Thermal Power Station (RF) (Pty) Ltd,

Registration Number: 2012/120292/07

Name of current director(s): Prabashen Govender

SECTION B

COMMENCEMENT DATE OF LICENCE

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

Unit 1 and Unit 2:

- | | |
|--------------------------------------|---------------|
| 1. Desired Date: | 01 March 2017 |
| 2. Proposed Construction Start date: | 01 April 2017 |

Proposed Commissioning date of First Unit: 01 May 2020

Proposed Commissioning date of Second Unit: 01 September 2020

Note to Section B

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

ACWA Power Khanyisa IPP Project

C2 Geographical location of generation station

**All properties located in and around the Emalahleni Municipality,
Mpumalanga Province**

For the Project Site:

- Remaining Extent of Portion 1 of the Farm Klipfontein No. 322 JS;
- Remaining Extent of Portion 145 of the Farm Klipfontein No. 322 JS;
- Portion 167 of the Farm Klipfontein No. 322 JS; and
- Remaining Extent of the Farm Groenfontein No. 331.

For the Ash Disposal Site:

- Remaining Extent of the Farm Groenfontein No. 331;
- Remaining Extent of Portion 2 of the Farm Groenfontein No. 331;
- Remaining Extent of the farm Klippan No. 332;
- Portion 2 of the farm Klippan No. 332;
- Portion 7 of the farm Klippan No. 332; and
- Portion 11 (a portion of Portion 5) of the farm Klippan No. 332.

The water pipeline:

- The Farm Groenfontein 331 JS: Remainder of the Farm, Portion 6, and Remainder of Portion 3
- The Farm Klipfontein 322 JS: Remainder of Portion 145, Portion 171 and

Remainder of Portion 1

Substation and Overhead power line:

- Remainder of the Farm Klippoort 334 JS
- The Farm Naauwpoort 335 JS: Portions 49 and 51
- The Farm Klipfontein 322 JS: Portion 167 and Remainder of Portion 145

Refer to [Annexure C1 and C2](#): General Site Layout and Arrangement of the Project Site

C3 Address of generation station

Refer to section C2.

C4 Contact person at generation station

ACWA POWER KHANYISA THERMAL POWER STATION (RF) (PTY) LTD.	
Name	Prabashen
Surname	Govender
Tel Nr	+27 11 722 4100
Fax Nr	+27 11 722 4113
Email	pgovender@acwapower.com

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

The power plant is a thermal coal fired plant. The power plant will comprise 2 Units of the same size contracted. Technology comprises of a Fluidised Bed (CFB) boiler supplying a condensing steam turbine generator set and will utilise air cooled condensers.

C6 Expected commissioning date for a proposed generation station or at which the station was commissioned (if an existing station).

Proposed Commissioning date of Unit 1: 01 May 2020

Proposed Commissioning date of Unit 2: 01 September 2020

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

Planned Capacity for Unit 1: 153 MW Net (Contracted)

Planned Capacity for Unit 2: 153 MW Net (Contracted)

Actual Capacity: To be determined during the commissioning phase.

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 (Gross)	Total MWh	Own use MWh	Outages	Export(Sales)MWh
1	345.4	██████████	██████████	██████████	██████████
2	345.4	██████████	██████████	██████████	██████████
3	345.4	██████████	██████████	██████████	██████████
4	345.4	██████████	██████████	██████████	██████████
5	345.4	██████████	██████████	██████████	██████████

Note: The maximum contracted capacity is less than the max generated capacity.

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

The Plant Heat –rate guarantee at RSC condition & with performance coal specification shall be:

- Net-Heat-Rate @TMCR = ████████ KJ/KWh

- The Coal CV @HHV basis = ████████ MJ/Kg at a.r basis.

The Conversion Net-efficiency of station = ████████ %

C10 Expected future life of the generation station.

The term of the PPA is 30 years post construction. The plant has a design life approximately 40 years.

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)

Newshelf 1316 Proprietary Limited (Registration number 2015/231538/07)
("FuelCo")

D2 Particulars of the contractual arrangements with primary energy supplier

- Coal Supply Agreement between the Project Company and FuelCo.
- Coal Reclamation Agreement between FuelCo and Anglo American Operations Limited (acting through its Anglo American Thermal Coal Division)

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).*

Refer to the Coal Supply Agreement in [Annexure D](#)

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.**

Major Maintenance schedule and duration are defined below, no cost are considered for those maintenance since this is already captured under the O&M contract under a fixed fee.

Contract year	Days	Unit 1 Maintenance	Duration (Days)	Unit 2 Maintenance	Duration (Days)
1	244	Annual	15	Annual	15
2	365	Annual	15	Annual	15
3	365	Minor	30	Annual	15
4	365	Annual	15	Minor	30
5	366	Annual	15	Annual	15
6	365	Annual	15	Annual	15

Operating period	Contract Year	Projected Loss of Energy Output due to scheduled Outages planned Derating (% of total generation)	Projected Loss of Energy Output due to Unscheduled Outages & Unplanned Derating (% of total generation - scheduled outages)	Availability
1	1	██████	██████	██████
2	2	██████	██████	██████
3	3	██████	██████	██████
4	4	██████	██████	██████
5	5	██████	██████	██████

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

In the first 15 years of the project life, the salvage value of the plant is expected to be sufficient to cover decommissioning costs. Thereafter the incremental amount budgeted for decommissioning is as reflected in the table below.

Year	Decommissioning costs in ZAR Millions
████	██████████
████	██████████
████	██████████
████	██████████
████	██████████
████	██████████
████	██████████
████	██████████
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████	██████████
████	██████████
████	██████████
████	██████████

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

None.

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

Eskom Holdings SOC Ltd

Physical Address: Simmer Centre,
Corner Power and Lake Streets,
Simmerpan, Germiston,
South Africa

Postal Address: P.O. Box 103,
Germiston,
1400

Contact Person: Callie Fabricius
Tel: +27 11 871 2482
Fax: +27 11 871 3289
Email: callie.fabricius@eskom.co.za

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

1. CONNECTION POINT & VOLTAGE:

The Eskom Cost Estimate Letter dated 3 November 2015 is attached in [*Annexure E1*](#).

The applicant has had numerous interactions with Eskom prior and subsequent to the bid submission. During the many interactions the Self Build option was the preferred solution by both Eskom and the Bidder. Refer to [*Annexure E2*](#). The meeting discussed the Point Of Connection as being someplace within the AIS, note item (d) in the letter.

The applicant therefore submits the drawing pertaining to Point Of Connection as appended in [*Annexure E3*](#). The Point of Connection and the Delivery Point is identified within the 400KV power plant substation on the HV side.

2. WHEELING ARRANGEMENT:

Not applicable, as PPA is to be signed directly with Eskom.

3. SINGLE LINE DIAGRAMS:

Refer to [Annexure F](#) for the single line diagrams.

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

1. PPA

The standard PPA will be signed with Eskom, using the Standard PPA as developed by the DoE under the CBIPPP. The PPA will be signed at a date determined by the DoE.

Refer to [Annexure G](#): Standard Power Purchase Agreement

2. PURCHASE PRICE

The components that make up the (Bid) Price Power Purchase Price are as follows:

Table 4.1: Table A.1 - Values of various Charge Rates detailed in Appendix A (Agreed Values for Payment Calculations) of Schedule 9 (Calculation of Payments) of the PPA at the Base Date

Components	Agreed value	Unit of Measure
CCR _b		Rand/MWh
FOMR _b		Rand/MWh
FCR		Rand/MJ
VCCR _{ib}		Rand/MWh
VCCR _{bab}		Rand/MWh
VCCR _{fab}		Rand/MWh
VCCR _{gb}		Rand/MWh

Note: (Actual) Power Purchase Price will be finalised on final signature of the PPA at a date determined by the DoE. Refer to [Annexure G](#) Schedule 9 of the PPA for the price structure of the contract.

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** 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.

The applicant is a shelf company and has not traded since its inception. However, refer to [Annexure H](#): Financial Model indicating financial projections for the Project Company.

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

Year	Max MW	Total MWh	Own use MWh	Outages	Export(Sales)MWh
1	345.4	██████████	██████████	██████████	██████████
2	345.4	██████████	██████████	██████████	██████████
3	345.4	██████████	██████████	██████████	██████████
4	345.4	██████████	██████████	██████████	██████████
5	345.4	██████████	██████████	██████████	██████████

For details of the revenues and costs, refer to [Annexure I](#): For Net Annual Cash Flows for 5 years.

- 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.

Refer to [Appendix I](#): For Net Annual Cash Flows

- 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.

S.No.	Item	Indicative Terms
1	Currency	ZAR
2	Debt structure	Total – ██████████ Lenders: Nedbank Capital; Standard Bank; ABSA Barclays; Industrial and Commercial Bank of China.

3	Fees	Clean commercial Tranche: • [REDACTED] • [REDACTED]
4	Pricing	Clean commercial Tranche : • [REDACTED] • [REDACTED] • [REDACTED] • [REDACTED]
5	Debt term	Clean commercial Tranche • [REDACTED] • [REDACTED] • [REDACTED]
6	Debt: Equity	[REDACTED]

Equity Financing – Equity financing shall be provided by the following shareholders in the project

Identity of the Member	Share of the Equity Finance	Value of Equity Finance (ZAR) at USDZAR [REDACTED] and [REDACTED]
International Company for Water and Power Projects (“ACWA Power”)	49%	[REDACTED]
Main Street 1377 Pty Ltd (“Main Street”)	20%	[REDACTED]
Pele Natural Energy Pty Ltd “Pele”	15%	[REDACTED]
Nibira Pty Ltd “Nibira”	11%	[REDACTED]
Palace Consulting Engineers Pty Ltd	5%	[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.*

The Coal procurement Purchasing program is prepared on the latest version of the IRP with the procurement activity as a result of the Minister of Energy’s Determination.

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.

CONSTRUCTION AND OPERATIONAL PHASE

During the construction phase, approximately 1500 people will be employed and approximately 150 people will be employed in operations and maintenance of the Project.

Refer to [*Annexure J*](#) for tables outlining the breakdown of employment opportunities at the facility.

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 find attached the following information as per the NERSA Explanatory Notes issues on the 14/12/2011.

Annexure K: Khanyisa Environmental Authorisation

Annexure L: Proof of Water Approval Application

Annexure M: Long term Lease Agreements (Land)

Annexure N: Civil Aviation Authority Approvals

Annexure O: Rezoning Approval

Annexure P: Overhead Line EA

Annexure Q: Khanyisa Water Pipeline EA

*** Landfill Use Rights (not applicable).*

SECTION J

BROAD-BASED BLACK ECONOMIC EMPOWERMENT

J1 Please provide information in terms of the following categories:

The effective shareholding by black people in the Company is 37.15% as summarised in the table below:

Shareholders	Shareholding in the Project	Shareholding of Black People in the Company
International Company for Water and Power Projects ("ACWA Power")	49%	0%
Main Street 1377 Pty Ltd ("Main Street")	20%	72.25%
Pele Natural Energy Pty Ltd "Pele"	15%	100%
Nibira Pty Ltd "Nibira"	11%	60%
Palace Consulting Engineers Pty Ltd	5%	100%
	100%	37.15%

The Contractor responsible for the operations and maintenance of the power plant (the O&M Contractor) will have a shareholding of 20% by Black People.

SECTION K

ADDITIONAL INFORMATION

The Project Company will implement extension programmes related to Socioeconomic Development, Skills Development and Supplier Development. Approximately ZAR 700 Million will be spent towards these programmes during the life of the project.


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:

	
PRABASHEN GOVENDER	DIRECTOR

Full name(s) of Signator(y/ies):

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

Date

03 NOVEMBER 2016
