

In the matter regarding an

APPLICATION FOR A GENERATION LICENCE

By

SLIMSUN (Pty) Ltd

Application No: NERSA-658-78

THE DECISION

Based on the available information, public comments and analysis of generation licence application received from SlimSun (Pty) Limited, the National Energy Regulator of South Africa, at its meeting held on 26 April 2012:

1. **Approved** the issuing of a generation licence to SlimSun (Pty) Limited for operating its 5MW Solar Photovoltaic Energy Facility in Swartland, Western Cape subject to licence conditions imposed.
2. **Approved** the attached Reasons for Decision (RfD) document.
3. **Noted** the price and the risk allocation provisions in the Power Purchase Agreement (PPA) between Eskom Holdings SOC Limited and SlimSun (Pty) Limited.

REASONS FOR DECISION

INTRODUCTION

1. The South African Integrated Resources Plan 2010-2030 (IRP2010) approved and published in May 2011 by the Department of Energy (DoE) outlines the proposed power generation mix for South Africa for the period 2010 to 2030. The IRP2010 seeks to increase the overall contribution of new renewable energy generation to 17,800MW by 2030 (42% of all new-build generation).
2. On 02 July 2011, the Minister of Energy issued the Determination for the Independent Power Producer (IPP) procurement programme in accordance with section 34 (1) of the Electricity Regulation Act, 2006 (Act No. 4 of 2006) [“ the Act”].
3. The National Energy Regulator of South Africa (NERSA) concurred with the Ministerial determination on 07 July 2011.
4. To implement the Ministerial Determination, the Department of Energy (DoE) released the Request for Proposals (RfP) document for the procurement of renewable energy on 03 August 2011.
5. The RfP set the first window of procurement that targeted to procure 3,725MW of renewable energy from the following renewable energy sources: 1,850MW of onshore wind, 1,450MW of solar photovoltaic (PV) , 200MW of concentrated solar power (CSP), 75MW of small hydro($\leq$ 10MW), 25MW of landfill gas and 12.5MW of biomass. This bidding window was closed on 04 November 2011.
6. The RfP requires the abovementioned projects to meet the Commercial Operation Date (COD) of 30 June 2014 for all technologies, except for Concentrated Solar Power (CSP), for which the COD is the end of June 2015.
7. In total, 53 bids were received by 04 November 2011 and an evaluation was conducted between 04 and 28 November 2011.
8. On 07 December 2011, the DoE announced 28 preferred bidders for the first bid submission phase .**SlimSun (Pty) Limited** (“the applicant) is one of the preferred bidders.
9. The energy allocation to the preferred bidders is as indicated in Table 1 below:

Technology	Capacity (MW)	Number of projects/ Passing Bids
Wind	633.99	8
Solar PV	631.53	18
Solar CSP	150.00	2
Total	1,415.52	28

Table 1: Energy allocation to the preferred bidders

10. All preferred bidders are required by DoE to obtain generation licences before the end of June 2012 to enable financial close of the projects.

THE APPLICATION

11. On 09 December 2011, an application for a generation licence was received by NERSA.
12. The following documents accompanied the generation licence application form:
 - a) Preferred bidder's appointment letter from Department of Energy.
 - b) Estimate connection Quotation from Eskom.
 - c) Confirmation of water availability from Department of Water Affairs.
 - d) Single line diagram.
 - e) Process Flow Diagram and Equipment list.
 - f) South African Civil Aviation Authority (SACAA) Clearance.
 - g) Reasons of Decision from Department of Environmental Affairs.
 - h) Financial model.
 - i) Proof of land ownership.
 - j) Connection agreement.
 - k) Power Purchase Agreement (PPA). The duration of the PPA is 20 years.

THE APPLICANT

13. The applicant is incorporated under the laws of South Africa, with the company number 2011/00061/07.
14. The shareholding of the company is as indicated in Table 2 below:

Company Name	Shareholding
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

Table 2: Company Shareholding

DECISION MAKING PROCESS

15. On 17 and 18 January 2012, the Applicant published the notices in the *Swartland Gazette* and in *Die Courant* respectively, notifying the residents about the proposed project. No objections were received by NERSA.
16. On 22 February 2012, NERSA published its notices inviting all stakeholders and members of the public to attend a public hearing or to submit comments. These notices were published in the following national and provincial newspapers:
 - a. **National:** Business Day, the Star, Pretoria news, Mercury, Sowetan, Cape Times, and the Business Day.
 - b. **Provincial:** Cape Argus, Polokwane observer and Diamond Field Advertiser.
17. On 01 March 2012, NERSA held its public hearing in Cape Town.

OBJECTORS AND INTERVENING PARTIES

18. There were no objections received through the notices published by the Applicant.

APPLICABLE LAW

19. The legal mandate for the Energy Regulator to issue electricity generation licence is derived from the following Acts:
 - a. Electricity Regulation Act, 2006 (Act No.4 of 2006), and
 - b. National Energy Regulator Act, 2004 (Act No. 40 of 2004).

ANALYSIS OF THE APPLICATION

FINANCIAL INFORMATION

20. The capital expenditure for this project is R [REDACTED]. The project funding is as indicated on Table 3 below:

Sources	R '000	%
Equity	[REDACTED]	[REDACTED]
Senior Debt	[REDACTED]	[REDACTED]
Mezzanine Debt	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]

Table 3: SlimSun project funding

21. Calculated Construction Costs = $\frac{\text{Capital Costs}}{\text{Maximum Capacity}}$
- = $\frac{\text{R [REDACTED]}}{\text{[REDACTED] kW (*1 [REDACTED])}}$
- = R [REDACTED] /kW
- = $\text{US\$ [REDACTED] /kW}$ (Exchange rate assumed US\$1 =R8)
22. According to information sourced from the study conducted by ECOFYS in 2011, it is shows that the investment costs for solar PV power plants are in the range of US \$3,896/kW - US\$6,274/kW.
23. The total installation cost for the project when compared to the International Energy Agency (IEA) 2011 study ranges between US\$3,374/kW – US\$5,588/kW for PV power installations greater than 1 MW. See table 4 below.

ECOFYS Study (>1MW)	IEA (>1MW plant)	Applicant
US\$3,896/kW - US\$6,274/kW	US \$3,374/kW - US \$5,588/kW	US\$ [REDACTED] /kW

Table 4: Investment costs comparison

24. The post tax Internal Rate of Return is [REDACTED] %.
25. The payback period is [REDACTED]-years; this period falls within the duration of the PPA, which is 20 years.
26. In the first year of operation the plant will generate total revenue of about R[REDACTED]m per annum.
27. During the public hearing, the applicant indicated that, the plant maintenance costs will be in [REDACTED] % of the total annual revenue.

TARIFFS

28. The Commercial Energy Rate of the PV plant will be R[REDACTED]/kWh with 100% of the indexed to Consumer Price Index (CPI).
29. The indexation used in the financial model is as per DoE Briefing Note 5 Part 4 issued on 21 October 2011 and is 5.7%.
30. Table 4 below shows the comparison of the PPA tariff of the applicant's solar PV plant with REFIT 2009 Tariff and IPP Program Ceiling Tariff. The tariff awarded to the applicant is the same as the ceiling tariff, but lower than REFIT 2009.

Technology	REFIT 2009 Tariff (R/kWh)	IPP Program Ceiling Tariff (R/kWh)	PPA Tariff (R/kWh)
Solar Photovoltaic	3.94	2.85	[REDACTED]

Table 5: PPA Tariff comparison with REFIT

31. At the public hearing the applicant mentioned that, in order for this project to viable and sustainable they needed to consider the high overnight costs and Eskom's grid connection costs and therefore bidding [REDACTED] was the only viable option they had.

POWER PURCHASE AGREEMENT

32. The Power Purchase Agreement (PPA) was presented to the Energy Regulator at its meeting held on 16 November 2011. The salient points in the PPA analysis is summarised as follows:
 - a) There is a fair and balanced allocation of risks between affected parties.
 - b) The adopted price competitive mechanism was found compatible with fair pricing to electricity consumers.

- c) All the payment obligation risks or liabilities of the Buyer were found adequately catered for through a Government Support package in the form of an Implementation Agreement.



33. The Energy Regulator noted the Risk Allocation and Cost Recovery provisions in the Project Agreements for New Generation Capacity under the Independent Power Producer (IPP) Procurement Programme.

ECONOMIC INFORMATION

34. The applicant indicates that socio-economic benefits of this project includes the following:
35. During the construction phase (12 months), about 58 job opportunities will created.
- a. During the operation phase (300 months), the plant will be operated and maintained by at least by three (3) persons.
 - b. Other community programmes that will benefit from the project will be, for example, the contribution to the early childhood development programmes, HIV/AIDS awareness, and the Arts.
36. This project will be beneficial to South Africa as it will contribute to job creation, ensure localisation of renewable energy technologies, aid economic development, reduce Greenhouse Gas Emissions and introduce diverse energy sources

TECHNICAL INFORMATION

37. The SlimSun Swartland Solar Park is located within the Swartland Region of the Western Cape.
38. The plant will occupy about 7ha on portion 1 of the farm Kleine Rondeboschje.
39. The plant will generate approximately 1,87GWh over a 20-year period.

40. The electricity will be supplied to Eskom Distribution (Western Cape).
41. The plant will be connected at 11kV voltage (the new Swartland Solar Sub-station that will be built by Eskom adjacent to the generation plant).
42. A site plan and technical specification have been included in the application.
43. The plant's life span and its load factor is 25 years and 23% respectively.

CONCLUSION

44. On the conspectus of the facts and evidence, the generation licence application is in compliance with the requirements of the Electricity Regulation Act, 2006 (Act No. 4 of 2006) and it is thus appropriate to make the decision set out above.