



## December 2015 Quarterly Activities Report

### 1. The Waterberg Coal Project

Firestone Energy Limited (the **Company**) is a participant in the Waterberg coal project joint venture (the **Waterberg Project**), situated in the Limpopo Province, South Africa. The Waterberg Project currently has identified coal resources of 3.4 billion tonnes of coal contained within the granted mining and prospecting rights<sup>1</sup>.

Accruing from the various work streams and technical studies that have been carried out to date, the Waterberg Project now comprises the following projects:

- The Eskom Project;
- The Export Project; and
- The IPP Project.

Predicated upon funding being forthcoming, pursuant to the proposed arrangements with Sibanye Gold Limited (**Sibanye**) [as set out below], the Company continued to advance the progress of the Waterberg Project and associated activities.

#### 1.1 The Eskom Project

Since the completion of the definitive feasibility study (**DFS**), the project team have been engaged in value engineering and optimisation studies for the Eskom Project with a view to enhancing the bankability of the project and reducing the cost of delivery of product to Eskom Holdings SOC Ltd (**Eskom**). As at the date of this report the joint venture partners in the Waterberg Project (the **Waterberg Project Partners**) are in discussions with Eskom for producing coal on a long term basis.

##### 1.1.1. Project Optimisation Study

Value engineering work on the Eskom Project advanced during the quarter, including a revised model focusing on optimising the output to produce either an Eskom product or a combined Eskom and an independent power producer (**IPP**) feed product.

The optimisation study also incorporated a revision of the Waterberg Project's mining plan and economic model and now is in a position to discuss with Eskom supply price with incremental supply tonnages and a range of qualities to meet their range of boiler fuel needs.

#### 1.2 The Export Project

During the 2015 financial year a DFS for a proposed development of an export project mine was completed. This proposed development would see production of up to 4 million tonnes per annum of high quality export thermal coal product over a 3 to 4 year period.

An optimisation study for the Export Project is underway. The significant focus of this optimisation study is the review of the projects capital requirements with a view to enhancing the viability

<sup>1</sup> See Appendix I for the Resource Statement.

### ASX Release

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#### ASX / JSE Symbol

FSE

of the project. The optimisation includes consultation with world-class plant designers and contract vendors for the mining and processing facilities and services. The Waterberg Project Partners are confident that the optimisation process will derive positive outcomes resulting in considerable reductions in capital funding requirements for the project.

A key focus of the optimisation study is to revise the original washing process plans to enable production of a higher quality of coal suitable for the export market and to provide flexibility for production of a higher quality power station feed product for a proposed IPP to be located within the confines of the Waterberg Project. This power station product is planned to be stockpiled during the export grade coal mining phase until the potential IPP platform is completed. Utilisation of this product as IPP feed will result in optimal resource utilisation.

#### 1.2.1. Coal Processing Plant

The Waterberg Project Partners completed their evaluation of build-own-operate (**BOO**) proposals during the quarter.

The Waterberg Project Partners are confident that adopting a BOO strategy in conjunction with well experienced operators will significantly reduce up front capital requirements and provide for a swift progression to mining and production.

#### 1.2.2. Mining Operations

Negotiations with a number of parties for the award of the mining contract continued to advance during the quarter. The bidding process, guided by the Waterberg Project mining engineer, has progressed to a point where we have indicative pricing on a ZAR/ROM per tonne which is within the parameters of the Waterberg Project Partners' financial modelling and the costing in the DFS. We have used this quarter to investigate alternative mining contractors to ensure we have options available, specifically regarding price and performance. It is envisaged that the Waterberg Project will be a large mining operation, by any measure, and multiple mining contractors are not being ruled out.

#### 1.2.3. Project Water Supply

During the quarter Ceenex (Pty) Ltd (**Ceenex**), an independent management, technology and engineering advisory firm, were briefed on the Waterberg Project water plan using the Paarl Waste Water Treatment Facility (the **Facility**). Ceenex has now provided the Waterberg Project Partners with a proposed scope of work outlining the work required to comply with the necessary environmental, legal and physical project related tasks in order to complete the water supply for the mining, process and first stage power plant.

This scope of work is expected to take twelve months and integrates well with the Waterberg Project development plan. The deliverables from this exercise will include, but not limited to, a water use licence, a cost effective plan for the operation and management of the Facility and the delivery of process water to the Waterberg Project site.

The Waterberg Project Partners are also in ongoing discussions with the South African authorities in connection with the planned Mokolo Crocodile River Water Augmentation Project that will supply adequate long term water for the development of the Waterberg Project's long term IPP plans and the entire region.

#### 1.2.4. Power Production for Project Construction Purposes

The Waterberg Project Partners continued discussions with multiple parties regarding the onsite production of power generation for the proposed mining project development. SMEC Holdings Limited (**SMEC**), as consultants, will provide guidance and advice to the Waterberg Project Partners in respect of electricity generation plant specifications to ensure achievement of optimal technological configuration and operational efficiency for the plant.

### 1.2.5. Export Product Off-take Arrangements

The Waterberg Project Partners are in discussions with parties with respect to memorandums of understanding for the initial export production offtake. The product specifications for the export product that are anticipated to be sold into long-term offtake agreements are as follows:

	Combined Total Average	Upper Zone (03-15)	Lower Zone (17-20)
Ash (%)	17.39	24.73	16.38
CV (MJ/kg) (ad)	25.99	23.21	26.37
Moisture (%)	3.25	2.51	3.35
Volatiles (%)	24.86	26.88	24.59
Sulphur (%)	0.71	0.72	0.71
Yield (%)	71.52	37.39	76.19

### 1.3 IPP - Power Transmission

As previously reported, the Waterberg Project Partners have been carrying out preliminary work on the incorporation of an IPP platform on the Waterberg Project site.

During the quarter the study team continued its scope of works. As part of this scope, the study consultants, SMEC, concluded an investigation and study of the current transmission capacity of the existing transmission infrastructure available for the transmission of the first stage planned IPP production. This verified that the evacuation of the planned power production for the first phase IPP is viable with the existing infrastructure. Further power generation units will have additional transmission capacity challenges, which will be addressed when appropriate.

Additionally, during the quarter a number of critical aspects of the IPP development study were completed, including a technology survey which determined that circulating fluidised bed technology was the most appropriate for the Waterberg Project resource. There were a number of positive reasons for this including, *inter alia*, lower emissions and the ability to utilise lower grade carbon fuel, thus maximising the yield or carbon utilisation from the deposit. It also allows the utilisation of the fines discard for fuel, minimising or negating the need for tailings disposal.

## 2. Corporate

### 2.1 The SBSA Facility and the Proposed Transaction with Sibanye

The Company entered into a voluntary suspension of its shares on 19 March 2015 whilst it conducted negotiations with Standard Bank of South Africa Limited (**SBSA**) (and other participants) (the **SBSA Noteholders**) with respect to “refinancing” the SBSA convertible note facility (the **Facility**).

On 15 September 2015 the Company and Firestone Energy Limited entered into a term sheet with Sibanye whereby, *inter alia*, Sibanye agreed provisional terms with SBSA (as the Facility agent) to acquire the Facility.

As advised to the market on 17 September 2015, the transaction contemplated with Sibanye was subject to due diligence (legal, technical and financial); the due diligence was expected to be completed by end of November 2015.

Sibanye has advised that due diligence has been completed and, whilst they are desirous of pursuing the transaction, they wish to vary, *inter alia*, the terms of the proposed transaction with the SBSA Noteholders. At the date of this report, this variation has not been completed or documented.

It is contemplated that once the variation with the SBSA Noteholders has been documented a revised term sheet will be entered into with all of the parties.

### 2.2 Annual General Meeting

The Company held its Annual General Meeting on 30 November 2017. All resolutions were passed on a show of hands at the meeting. Dr Mathews Phosa was re-elected as a Director.

### 2.3 Issue of Securities

On 28 November 2015 the Company placed 36,842,158 fully paid ordinary shares at ZAR0.095 each to raise ZAR3.5 million (approximately AU\$358,000), this has been applied to working capital. 2,000,000 options exercisable at AU\$0.01 with an expiry of 30 April 2017 were also issued on the same date in lieu of interest for small short term working capital loans.

Stephen Miller  
**Managing Director and CEO**  
**Firestone Energy Limited**

Appendix I: Resource Statement<sup>1 2</sup>

**Coal Resource on all six Waterberg Coal Project Properties under both Prospecting Permit and Mining Right**

Resource Classification	Coal Resource* (Mt)	Ash % (ad)	IM % (ad)	Vol % (ad)	CV (Mj/kg) (ad)	TS % (ad)
Measured	1314.51	57.6	2.2	17.9	10.7	1.00
Indicated	1247.2	57.4	2.3	17.8	10.7	1.13
Inferred	838	58.5	2.2	17.6	10.4	1.19
Total Resources	3400	57.7	2.2	17.8	10.6	1.09

*\*Coal resource is based on a minimum thickness cut-off of 0.5m*

<sup>1</sup> Please note that this information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2013 on the basis that the information has not materially changed since it was last reported.

<sup>2</sup> Competent Person Statement - Gemecs (Pty) Limited was commissioned by the Company to undertake an Updated Independent Persons Geological Report for the Waterberg Coal Project. The Coal Resources were estimated in accordance with the South African code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (**SAMREC Code**), Australasian Code for Reporting of Exploration Results. Mineral Resources and Ore Reserves (the **JORC Code**) and South African National Standard (SANS 10320:2004) guidelines. The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Coenraad D van Niekerk, Pr.Sci.Nat (Reg. No 400066/98), M.Sc Hons (Geology), MDP, an employee of Gemecs (Pty) Limited, who is a Fellow of the Geological Society of South Africa. Mr Coenraad D van Niekerk is a mining geologist with 38 years' experience in the mining industry, sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Joint Ore Reserves Committee (**JORC**) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Coenraad D van Niekerk consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Any discrepancy is due to rounding.