



## Resource Generation South Africa Limited: Ledjadja

Railway Siding to Boikarabelo Mine

### Background

Project Value: ±USD100m | Duration: Jan 2013-June 2014\*

RCE Consultants have performed the railway engineering design and related work for the new ResGen Boikarabelo coal mining development.

The mine is being established in the Waterberg area of the Limpopo Province, South Africa.

The project involves the detail design and implementation of a rail siding, connecting the mine's rapid loading terminal (RLT) to a network stabilising facility (NSF) on the Ellisras-Thabazimbi section of TFR's Waterberg rail corridor.

*\*Pending re-commencement and financial provision*

### Key Features

A feasible rail link alignment connecting the TFR mainline to the mine has been established. The rail link is approximately 36km in length and is designed to accommodate 26 ton axle loads.

A total of seven grade separation structures form part of the link design.

The end-state mine siding design comprises two balloon loop loading lines, two load-out facilities, rail infrastructure to accommodate two trains consisting of 200 wagons each, an in-motion weigh bridge, train monitoring equipment, yard lighting as well as other relevant facilities according to user requirements.

### Services Provided

The following services were provided:

- + Initial pre-feasibility route selection studies
- + Pre-feasibility design of siding
- + Environmental scan
- + Feasibility study for the balloon, link line and NSF
- + Detail design of all track and earthworks, incl. bridges
- + Detail design of drainage structures
- + Geotechnical investigations
- + Concept train planning and operations

- + Consultation/approval with landowners, interested and affected parties, authorities and service utilities
- + Detail design of the private rail siding
- + Compilation of technical tender documentation
- + Provision of in-motion weighbridge
- + Design of area lighting for the yard area
- + Full technical & railway engineering contract specifications
- + Construction programming

### Outcome

The rail link line between the mine and TFR via the NSF, including the actual mine siding and NSF, have been Engineered from concept and alignment design development through to detail design, documentation and tender stages.

Contractors have been appointed for the execution of the

Civil and Earthworks with tenders for the remaining work still to be issued, all to RCE designs and specifications.

RCE is also responsible for high-level on-site monitoring of the quality of work.