The Kruisvallei Hydroelectric Power Generation Scheme will evacuate the power generated into the national grid via the existing Node Substation. In order to evacuate the power, the project will include the construction of a new 22kV overhead power line ~12.6km in length to connect the project to the existing Node Substation and an internal power line ~3.4km in length to connect LK Scheme to the on-site substation located on Kruisvallei 190.

The optimised power line route was subject to extensive modifications and realignments. This was in response to concerns raised by landowners as well as recommendations made by specialists during the Basic Assessment (BA) Process undertaken for the project. The section below provides details as to how the optimised power line alignment was determined by the applicant:

**Original alignment:**
The internal power line route was situated east of the Ash River and followed the Ash River from the LK Scheme to the MK Scheme. The power line crossed the Ash River to connect to the on-site substation located on Kruisvallei 190 (refer to Appendix A1).

The external 22kV overhead power line traversed the following properties:
- Farm Kruisvallei 190;
- Remaining Extent of the farm Stefanium 747;
- Farm Spionkop A 1259;
- Remaining Extent and Portion 1 of the farm Boston 40;
- Remaining Extent of the farm Baris 54;
- Remaining Extent and Portion 2 of the Farm Node 77;
- Farm Drupfontein 710;
- Farm Kleinzonderhout 289; and
- Remaining Extent and Portion 1 of the farm Modderina 1116.
The overhead power line alignment proposed at that time, traversed a section of cultivated land along the route. During a site visit undertaken by the applicant in August 2017, Mr. D. Viljoen (landowner of the Remaining Extent of Spionkop A 1259, Farm Drupfontein 710, Farm Kleinzonderhout 289 and Portion 0 of Node 77) raised concerns regarding the power line traversing sections of cultivated land.

First update to power line alignment (23 August 2017):

» In response to the concern raised by Mr. Viljoen, the applicant realigned the 22kV overhead power line to avoid sections of cultivated land as pointed out by Mr. Viljoen.

» The internal power line proposed at that time also traversed cultivated land located on Kruisvallei 190 along the eastern side of the Ash River. Mr. R. Silcock (representative of Mayborn Investments (Pty) Ltd and resident to Kruisvallei 190) raised concerns regarding this alignment.

Second update to power line alignment (13 November 2017):

» In response to the concerns raised by Mr. Silcock, the alignment of the internal power line was aligned to the western side of the river on Middelvallei 130.

Third update to power line alignment (22 November 2017):

» During the second update of the internal power route, the power line was aligned to the western side of the river on Middelvallei 130 as described above. Mr. M. Ferreira (landowner of Middelvallei 130) pointed out that a section of cultivated land located directly west of the LK Scheme, will be impacted by the power line route and that he was not supportive of the alignment.

» During the Focus Group Meeting (FGM) held with Mr. J. Farrel (landower of the Remainder of and Portion 1 of the Farm Boston 40, Portion 0 of the Farm Baris 54 and the Remainder of the Farm Plasie 1856) on 20 November 2017, Mr. Farrel advised that he will not allow any more power lines on any of his properties.

» Mr. G. Fourie (landowner of Portion 1 of the Farm Goedehoop 743 and Portion 2 of the Farm Node 77) raised a concern with regarding the 22kV overhead power line following the southern boundary of Portion 2 of the Farm Node 77 during the FGM held on 20 November 2018. Mr. Fourie suggested that the power line route should rather follow the northern boundary of the property.

Fourth update to power line alignment (16 January 2018):

» In response to Mr. Ferreira concerns raised, the internal power line route moved further to the west in order to avoid the cultivated land.

» The internal power line also traversed a section of the LK Scheme’s infrastructure and was slightly realigned to avoid the canal.

» As a result of the FGM with Mr. Farrel and Mr. Fourie, the 22kV overhead power line was realigned to exclude the Remainder of and Portion 1 of the Farm Boston 40 and Portion 0 of the Farm Baris 54 and to rather follow the northern boundary of Portion 2 of the Farm Node 77.
Fifth power line alignment (18 January 2018):

- From independent specialist studies undertaken, the power line route was realigned to avoid valley bottom wetlands along the route and for the power line to follow the existing road reserves as far as possible. The alignment also considered a grave site situated on Middelvallei 130.
- The applicant was further advised that a gravel road perpendicular to the power line route on the Remaining Extent of Node 77 is intermittently used as a runway for small aircraft. The applicant took this into consideration and the 22kV overhead power line route was slightly realigned.

Optimised power line alignment (22 February 2018):

The optimised power line assessed during the BA process undertaken for the project was based on input from the independent specialists as well as landowners impacted by the power line. The optimised power line route is considered to be the most feasible option for the power line due to its acceptability from an environmental perspective and the consideration of input from landowners. The impacts associated with the optimised power line alignment, after the implementation of the appropriate recommended mitigation measures, is acceptable and will not result in a whole-scale impact change to the area.

In summary, the internal power line affects the following properties:
- Farm Middelvallei 130; and
- Farm Kruisvallei 190.

The external power line affects the following properties:
- Farm Kruisvallei 190;
- Farm Spionkop A 1259;
- Remaining Extent and Portion 2 of the Farm Node 77;
- Remaining Extent and Portion 1 of the Farm Goedehoop 743;
- Farm Drupfontein 710;
- Farm Kleinzonderhout 289; and
- Remaining Extent and Portion 1 of the farm Modderina 1116.