Evaluating the feasibility of renewables at Jundee

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As part of the author's Masters in Mineral Economics research project, this paper outlines the work conducted to evaluate the cost competitiveness of renewable power generation against gas generation at Northern Star's Jundee Gold Mine.

The paper and associated presentation will outline the research methodology used; creating a framework to guide mining professionals when evaluating the feasibility of renewable power generation at their operation.

Topics covered will include:

- The business case for renewables
- High-level renewable generation and storage technology overview, including the concept of hybrid generation systems
- Renewable generation and storage technology costs and forward looking cost estimates
- Typical attributes of natural resources (solar and wind)
- How to develop site-specific natural resource datasets using publicly available information
- An overview of the simulation software used to evaluate the feasibility of renewables at Jundee
- Key parameters configured within the simulation software including justifications
- Model results and sensitivity to natural resource variability and gas price