

Bellevue on track to be Australia's first ASX-listed net-zero gold miner with signing of early works agreement for power station

Industry leading hybrid power solution; Renewable energy will provide 80% of Bellevue's power

- Bellevue has signed an Early Works Agreement with Energy Developments Pty Ltd (EDL), a Tier-1 provider of sustainable distributed energy, for an off-grid hybrid power station to be built at its Bellevue Gold Project in Western Australia
- Bellevue has now secured the long-lead items required for the hybrid power station
- The Agreement is a pivotal step in Bellevue's strategy to minimise greenhouse gas emissions, with the project to be powered by a forecast average of 80% renewable energy per annum
- The hybrid power solution will consist of wind and solar generation, as well as a battery and thermal generation to supply the site's power requirement of ~13MW
- The power station will enable the mine to have the lowest Scope-1 emissions of any major gold mine in Australia, providing the cleanest power on a greenhouse-gas-per-kilowatt hour basis; and forecast emissions intensity of 0.15t CO₂e/oz to 0.2t CO₂e/oz will be the lowest of any major Australian gold mine (Figure 1)
- The hybrid power station will enable the project to operate on 100% renewable energy and 'engines off' mode.
- Bellevue's processing circuit has been designed to maximise the natural resources of wind and solar, providing a direct cost reduction and emission-free energy use, by time shifting up to 1MW of power use, to times of ample low-cost and zero emission renewable energy



The hybrid power solution incorporating wind, solar and battery storage will enable 100% renewable energy operation, with all thermal generators turned off. Gas generation will ensure reliable baseload power generation when required. Source: EDL



Bellevue Gold Limited (Bellevue or Company) (ASX: BGL) is pleased to advise that it has taken a pivotal step towards its aspirational goal of becoming Australia's first ASX listed gold miner with net-zero emissions for the Bellevue Gold Project, by signing an Early Works Agreement with Energy Developments Pty Ltd (EDL) and locking in long-lead items for its power station ready for the processing plant commissioning in mid-2023. The purchasing of the long lead items will see the Company continue its world leading carbon mitigation strategy, based off proven technologies with a Tier 1 power supplier.

This agreement is a key step in Bellevue's strategy to be powered by a forecast average of 80% renewable energy each year using a wind, solar and battery hybrid power solution.

EDL built, owns and operates a similar turnkey power solution at the Agnew gold mine located ~35km south of the Bellevue Gold Project.

Bellevue and EDL are currently negotiating a Power Purchase Agreement (PPA) for the project, which is subject to approval by the Boards of both EDL and Bellevue.

Bellevue's industry-leading power solution is central to the Company's goal of generating the lowest carbon emissions per ounce of gold produced by any major Australian gold mine, with forecast emissions of between 0.15t CO₂e/oz to 0.2t CO₂e/oz (see Figure 1).

As well as being the lowest emitter on a per ounce basis, the project is forecast to have the lowest total Scope 1 emissions of any major mine in Australia. This will give the project the cleanest power supply in Australia based on a greenhouse gas per kilowatt hour basis of power generation.

By reducing greenhouse gas emissions, with a renewable energy power station and undertaking other sustainable initiatives, Bellevue aims to produce carbon-neutral gold, giving the Company a major competitive advantage in global investment markets. This also provides potential for the Company to seek a premium for the sale of 'green gold'.

The power station will prioritise the use of renewable energy and will also include a gas engine configuration, which will ensure there is always sufficient power for the mine, even in the rare absence of solar and wind resources. EDL will supply trucked LNG to the Bellevue Gold Project to maintain optionality for any future technological innovations in thermal generation alternative fuels. Importantly, trucked LNG provides a much cleaner fuel than diesel which was an important consideration to reduce emissions as far as possible.

At a steady-state production rate of 1Mtpa, renewable energy is expected to meet up to 80% of the Project's annual electricity needs, taking advantage of the region's strong solar and wind resources. Bellevue has been modelling the wind speeds and direction with a SODAR unit, which has allowed for the integration of wind turbines to increase the renewable energy penetration rate.

Maximising renewable energy uptake has been a key design consideration for the processing facility. The facility will have the ability to use more power - such as crushing and heating - when increased renewable energy is available, reducing thermal requirements.

The planned infrastructure includes an oversized crushing circuit to facilitate a processing rate of more than 1.5Mtpa (against current throughput rate of 1Mtpa), allowing the operational flexibility in this area for an optimised match up of the renewable energy demand to the renewable energy resource. The designed infrastructure will allow Bellevue to have a cost-effective renewable energy supply and optimise the power demand curve to better align with key daytime (solar) and night-time (wind) energy peaks and troughs. Through the generation of power from renewable energy sources, it will create the optionality for the crushing circuit to maximise crushing in peak renewable energy generation periods. This will have the potential to offset more than 1MW in demand on thermal power generation and lead to a direct cost saving and emissions reduction.

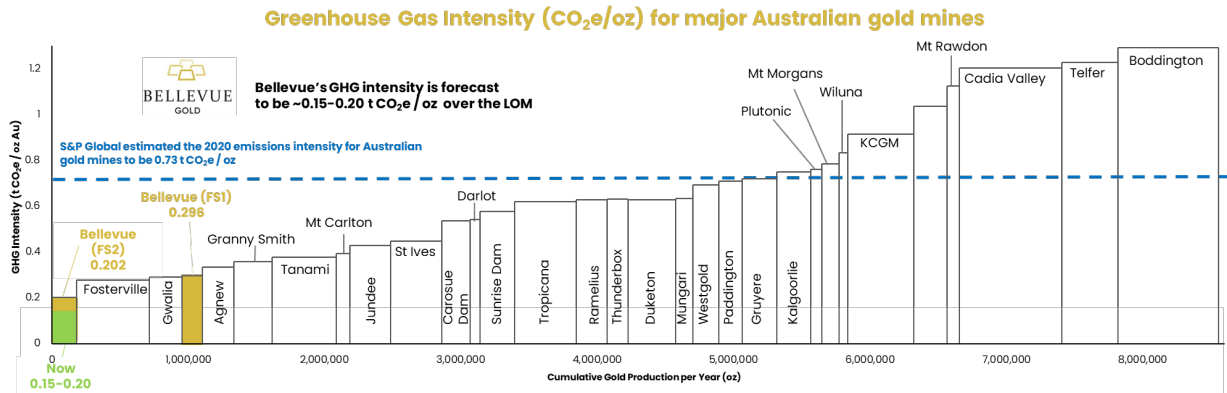


Figure 1: BGL's forecasted greenhouse gas emissions intensity will be the lowest emission intensity of any major Australian gold mine.

Bellevue Managing Director Steve Parsons said EDL had a highly successful track record of designing and implementing hybrid power station micro-grids across Australia.

“EDL is a leader in hybrid off-grid power stations,” Mr Parsons said. “Their skills and experience will help ensure we maximise the use of renewable energy at the Bellevue Gold Project.

“Bellevue is forecasted to be a 200,000oz* a year gold miner with low all-in sustaining costs of A\$1,000- A\$1,100/oz powered by ~80% renewable energy, with a pathway to net zero emissions as a world-leading company in the race to decarbonise the mining sector.

“Our pre-production carbon mitigation strategy has been strategic and is world leading. It achieves the ‘holy grail’ of lower emissions and a direct cost reduction in power generation.

“The combination of these metrics is expected to will position Bellevue as one of the most sustainable and financially successful Australian gold miners, maximising returns for all stakeholders.

“It will also underpin the Company’s strong appeal to global investors, who demand performance on both financial and ESG measures.”

For further information regarding Bellevue Gold Limited please visit the ASX platform (ASX:BGL) or the Company’s website: www.bellevuegold.com.au.

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* The total life-of-mine (LOM) production is underpinned by 72.4% Probable Ore Reserves and the remaining 27.6% is Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

Figure 1 Source: All data sourced from public company disclosures, with GHG emissions and annualised production averaged over the last 2-7 years of available reported data. Since the Stage 1 Feasibility Study, the Bellevue figure has decreased, and recent data points from other mines have been added. S&P Global issued a report on 18 August 2021, which stated the average 2020 GHG emissions intensity in Australia to be 0.73t CO₂e/oz.