

4 October 2023

RESULTS OF INITIAL FEASIBILITY STUDY FOR GEOTHERMAL POWER GENERATION

CeraPhi Energy has delivered the initial feasibility study to evaluate the latest geothermal closed-loop technology for the GRV's Longreach EPG. Focus will now shift to the Millungera Basin after successful assessment of CeraPhiWell™ technology.

Key Points:

- **CeraPhi Energy has completed the initial Feasibility Study on the potential for power generation at Longreach in Queensland.**
- **Well modelled to produce 150°C, demonstrating the effectiveness of the patented CeraPhiWell™ technology.**
- **Focus to shift to the Millungera Basin with assessment underway.**

Following on from its ASX announcement made on the 11 May 2023 "Greenvale Partners with CeraPhi Energy for Groundbreaking Geothermal Feasibility Study". Greenvale Energy Limited (ASX: **GRV**, "**Greenvale**" or "**the Company**") is pleased to announce the completion of its inaugural Geothermal Feasibility Study, conducted in collaboration with CeraPhi Energy ("CeraPhi"). The study was centred around Greenvale's Longreach geothermal tenement in Queensland.

The study was conducted by CeraPhi who were engaged not only to assess the area's geothermal potential but also to evaluate the likely effectiveness of their CeraPhiWell™ down-hole heat exchanger technology.

The study's outcomes are encouraging, revealing the capacity of the CeraPhiWell™ technology to provide the requisite heat for powering a 4.95MWe plant in the Longreach region. However, CeraPhi has concluded that geothermal exploration below 3,000m depth is unlikely to be economic at small scale. GRV will focus on the Millungera Basin geothermal potential which has target depths of 2.5-3kms and large scale regional power requirements

CeraPhi remains steadfast in its optimism about the potential of the CeraPhiWell technology within the Australian landscape, underscoring its adaptability and applicability. The feasibility study confirms the presence of an ample geothermal heat source in the Longreach area and validates the viability of the proposed down-well closed-loop technology for supporting a power station.

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With the positives stemming from the Longreach Geothermal Feasibility Study, the Company's focus now shifts to the Millungera Basin, where there is already a significant commitment and investment, not only in transmission infrastructure but also in mining and industrial development. Greenvale's geothermal team remains confident in the geothermal potential of the Millungera area, where it anticipates the discovery of requisite heat sources at shallower depths, with fewer sub-surface uncertainties.

Proposed next steps:

Millungera Basin Exploration: Shift focus and resources to the Millungera Basin permits, where heightened heat flow presents an opportunity. GRV's investigation will centre on determining the optimal geothermal well depth and assessing the cost implications of drilling to a depth of 3km,

As previously released (refer ASX Announcement 6th September 2022), The Company has received an independent assessment, from Ascendience Geoscience, of previous inferred geothermal resource estimates reported by the Geological Survey of Queensland (GSQ) for the Millungera Basin. Ascendience has confirmed the findings of the GSQ report, which assessed the basin's total stored thermal energy potential at over 611,000 petajoules of inferred geothermal potential. For reference, one petajoule is the equivalent of approximately 278-gigawatt hours.

Cost Mitigation Exploration: Exploring avenues for reducing well costs, including potential rig acquisition tailored to the project's needs.

Detailed Subsurface Review: Undertaking a thorough sub-surface assessment to identify drilling risks and define subterranean stratigraphy more accurately.

Exploration of Partnerships: Identifying potential energy clients or producers for potential collaborations that align with Greenvale's objectives.

Refining Single Well Cost: Our focus will also extend to refining single well cost estimates. An analysis of project capital costs indicates that drilling and well construction expenses can comprise up to 89% of the total. This effort will facilitate the development of a comprehensive framework to estimate potential drilling costs and assess the associated efficiencies.

Management Comment

Greenvale's CEO, Mark Turner, commented: *"Whilst the results from our maiden geothermal feasibility study for Longreach are encouraging from a technical point of view, the economics simply do not work at this time.*

"Therefore, we will shift our focus to the Millungera Basin where we have confidence in the transmission infrastructure and the potential for offtake. Being one of the first movers for geothermal in Australia was always going to present us with challenges. However, we now have confidence in the CeraPhiWell™ technology, confidence that we can take to the Millungera Basin as we look to unlock the area's immense geothermal potential."

AUTHORISED FOR RELEASE:

The Board of Greenvale has approved this announcement for release.

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CONSENT STATEMENT

CeraPhi Energy have reviewed and consented to this announcement and find it consistent with the findings of their feasibility study report.

FUTURE STATEMENTS

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