

23 October 2023

## ALPHA PROJECT UPDATE – LIQUEFACTION TEST PROGRAM FOUR GATHERS MOMENTUM, PAVING WAY FOR PFS COMPLETION

*Key first steps completed in Test Program Four; Resource upgrade due in early November following completion of extensive Phase 2 drill campaign.*

### Key Points:

- **Strong progress being achieved with Test Program Four at Monash University.**
- **2/3 Licella supercritical water test runs now complete, with samples under assessment by Petrolab.**
- **Monash test runs underway with first samples produced utilising Alpha core.**
- **Technix due to commence identification of bituminous product samples as first bulk samples are sent for assessment.**
- **SRK Consultants undertaking resource modelling – resource upgrade scheduled for delivery in early November, with expected upside in the size of the resource.**

Greenvale Energy Limited (ASX: **GRV**, “**Greenvale**” or “**the Company**”) is pleased to provide an update on ongoing testwork and development activities for its flagship 100%-owned Alpha Torbanite Project in central Queensland.

Greenvale CEO, Mark Turner, said:

*“While we have recently expanded our portfolio with the exciting acquisition of a high-grade helium and hydrogen project in central Australia that we believe will add significant value to the Company and the Alpha Project unequivocally remains our priority and flagship asset.*

*“I am energised by the recent progress we have achieved, and I am confidently looking forward to the completion of Test Program Four and the forthcoming release of the long-awaited Pre Feasibility Study (PFS).”*

*“This will mark a crucial milestone in the commercialisation of Alpha and a significant step towards the Company achieving its goal of becoming the only domestic, end-to-end producer of sustainable bituminous products to feed the critical infrastructure needs of Australia.”*

As outlined in Greenvale’s market announcement dated 23 August 2023, Liquefaction Test Program Four is now well underway and proceeding on schedule. The program comprises of

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three distinct assessments run by Monash University (Monash), Licella Holdings Ltd ('Licella') and Technix (see Figure 1).

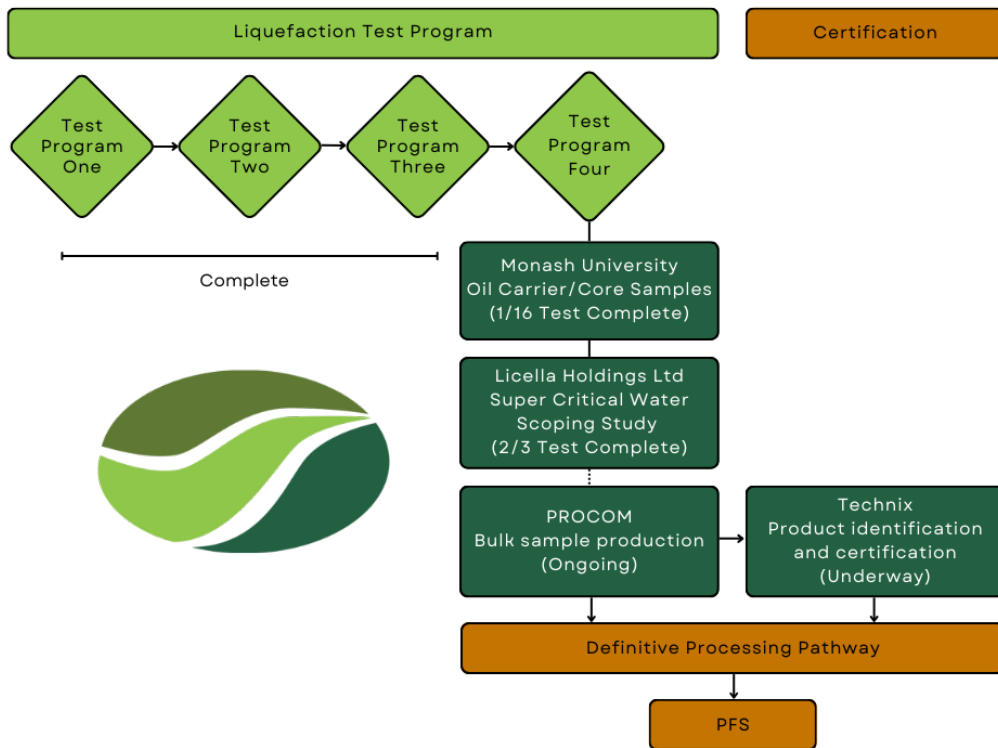


Figure 1: Greenvale's Liquefaction Test Program Flow Chart

Licella has been engaged to undertake a Scoping Study at batch level to better define the yield and structure of products, under PROCOM direction, utilising variations of supercritical water processing conditions that could potentially simplify the processing of the Alpha Torbanite Deposit.

As announced on 2 October 2023, Licella has completed the first supercritical water test run and the samples from the reaction tests have been sent to Petrolab for analysis. Petrolab's work is ongoing but it is expected that the initial results from the first test run will be provided imminently. Licella has now also performed the second of its three slated tests runs with samples being prepared for transportation to Petrolab for analysis.

Monash University's ongoing work program involves verifying prior results using core samples, conducting tests with both oil and supercritical water as carriers, and producing a one-litre bulk samples for final analysis. They are also performing a full suite of tests on the 16 original core samples, providing periodic updates to Greenvale, and will deliver comprehensive reports upon completion. This extensive program, currently in progress, builds on positive results from earlier tests, establishing a processing pathway crucial for the Alpha Project and the eventual Pre-Feasibility Study (PFS).

Monash has completed calibration of their PARR reactor, which has undergone its first test run, creating their first sample using cannellite only. Subsequent analysis of this sample has been performed internally by Monash, with results communicated to Greenvale's technical consultants, PROCOM. The results of this initial test run will be communicated in due course, as future test runs are completed providing further validity and context. At the time of this

release, Monash is about to commence test run two, out of a total planned sixteen runs. As previously stated, the results of this test run will be communicated in due course. Calibration of the Parr Reactor equipment is a crucial step in the liquefaction test procedure and ensures that future testing will be completed in a timely manner.

PROCOM have continued their diligent work and have produced the first bulk samples (five-litres) for independent assessment by Technix, Greenvale's bituminous product advisor. The bulk sample is currently in transit to New Zealand, with Technix's findings to be relayed to the Company's technical team as they are made available. It is not anticipated that this first sample will produce the final decided product suite; instead it is hoped that it will be used by Technix to better understand the unique properties of the Alpha Deposit.

Simultaneously, the Company expects that the results from the recently completed Alpha Phase 2 drilling will also be made available in the coming weeks (early November).

As previously reported on 2 October 2023, the Company completed the Phase 2 drilling program at the Alpha Project with initial results expected to increase both the size and confidence of the current 18.6Mt Mineral Resource. The core drilling programme comprised a total of 20 HQ core holes for a combined 1,053.5m of drilling.

The program involved the acquisition of 16 cores targeting the Upper & Lower Seams and four cores targeting just the Lower Seam. All core hole locations have been geophysically logged with wireline tools providing down-hole gamma, density and verticality surveys. Detailed logging of the core is now complete, with assays nearing completion.

Respected mining consultants, SRK Consulting, are completing the updated resource modelling. Management is confident that the resulting resource estimate will further enhance the potential commercial viability of the Alpha Project.

With regard to upcoming work programs, the Company's development plan involves conducting further tests using the PROCOM Parr Reactor, using a blend of Torbanite and cannelite to produce more bulk samples. This is intended to build on current progress and assist Technix with their analysis at their New Zealand bitumen lab. Additionally, once data from Test Program 4 (Monash & Licella) becomes available, the simulation work to estimate emissions and overall balances will continue. This is crucial as it relies on yield and quality assumptions, and the figures will be released once test results are obtained.

#### **AUTHORISED FOR RELEASE:**

The Board of Greenvale has approved this announcement for release.

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