



Honeymoon Uranium Project, South Australia

Boss set for Final Investment Decision after engineering study confirms strong financial returns

Front-end engineering study finds costs, technical performance and financial returns will be in line with 2021 feasibility study forecasts

Highlights

- Front-end engineering design (FEED) confirms cost estimates are in line with the 2021 Enhanced Feasibility Study (EFS)
- Final Investment Decision (FID) expected post completion of Tranche 2 Placement
- Long-lead items evaluated and ready to procure
- Engineering, procurement and construction works to begin immediately after FID

Boss Energy Limited (ASX: BOE; OTCQX: BQSSF) is pleased to announce that the recently-completed FEED study on its Honeymoon Uranium Mine in South Australia highlights a technically and financially robust project.

Importantly, the FEED study confirms that the cost estimates in the Enhanced Feasibility Study (see ASX release dated June 21, 2021) remain accurate.

The key highlights in the Honeymoon EFS include:

- Honeymoon is economically robust with an IRR of 47% at a US\$60/lb U₃O₈ price;
- Honeymoon is technically robust, with nameplate production of 2.45Mlb U₃O₈ per annum at an AISC of US\$25.60 over Life of Mine;
- Potential to extend beyond initial 11-year mine life through near mine satellite deposits.

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Boss Managing Director Duncan Craib said the FEED provided more strong evidence of the outstanding outlook for Honeymoon.

“The planets are aligning perfectly for Boss and Honeymoon in every respect,” Mr Craib said.

“The FEED shows Honeymoon’s costs are in line with the forecasts contained in last year’s enhanced feasibility study, which is a superb outcome given the wider inflationary environment.

“It also confirms that production is projected to meet our targeted levels.

“These key findings come against a backdrop of significant increases in the uranium price and an exceptionally strong supply-demand outlook.

“Our recently announced \$125 million equity raising, combined with the value of our strategic uranium inventory, means we are fully-funded through to production and cashflow.

“All these highly favourable factors have laid exceptional foundations for us to make a final investment decision in coming weeks, ensuring Boss will be Australia’s next uranium producer.”

FEED Outcomes

In September 2021, Boss committed to a FEED study with a target end date of 31 March 2022.

All targeted outcomes were achieved by the FEED, including:

- Finalisation of key technical and strategic project decisions;
- Produce foundation technical documents for detailed design;
- Confirm product specifications;
- Refine budget, scope and schedule for the project;
- Initiate project procedures and systems; and
- Prepare tenders for key long lead procurement items.

The FEED study focussed on progressing the design of the processing plant and infrastructure as well as optimising the mining and wellfields to enable a detailed capital cost estimate to be prepared to a level of accuracy of +/- 10%.

Based on the FEED study, the total capital estimate for the development of Honeymoon is A\$113M (including a contingency allowance of approximately 8%) which is within 6.6% of the EFS estimate. The FEED capital cost breakdown is as shown in **Table 1** below.

The FEED study assumes that the process plant is developed under an Engineering, Procurement, Construction and Management contract. Based on Boss’ current plans, first uranium is expected to be produced at Honeymoon within 12 – 18 months of Final Investment Decision.

Completion of FEED enables Boss to proceed with detailed design to commence immediately after a FID for Honeymoon’s restart is made. FID is expected after completion of the Tranche 2 Placement on or around 5 May 2022, whereupon the company will immediately commence with detailed engineering, procurement and construction works.

DEVELOPMENT CAPITAL SUMMARY		FEED
Direct costs		
Ion Exchange	A\$M	24.4
Resin and First Fill Reagents	A\$M	14.5
Installation Costs	A\$M	18.1
Power, Instrumentation, Control	A\$M	12.7
Wellfield and Mining Development	A\$M	7.2
Water Treatment Plant	A\$M	5.1
Total Direct Costs	A\$M	82.1
Indirect costs		
Contingency (8% contingency)	A\$M	7.6
Other Plant and Indirect Costs	A\$M	23.3
Total Indirect Costs	A\$M	30.9
Total Capital Costs	A\$M	113.0

Table 1: FEED capital cost breakdown

Project Execution Plan

Boss has also approved the Project Execution Plan (PEP) for Honeymoon’s restart, which outlines the objectives, processes and strategies to be employed by the Company’s personnel (Owner’s Team) and appointed EPCM Engineer.

This plan will also establish a framework to ensure that project expectations and key performance indicators are met. Undertaken by the Owner’s Team, the PEP will be the governing control document for all aspects of Honeymoon’s execution phase of restarting operations and is designed to ensure the project meets targeted production requirements. The plan ensures that a consistent approach is adopted by all parties managing the project.

This ASX announcement was approved and authorised by the Board of Boss Energy Limited.

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References to previous ASX announcements

In relation to the results of the Enhanced Feasibility Study announced 21 June 2021, the Company confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed.

Forward-Looking Statements

This announcement includes forward-looking statements. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties, and other factors, many of which are outside the control of Boss, which could cause actual results to differ materially from such statements. Boss makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of this announcement.